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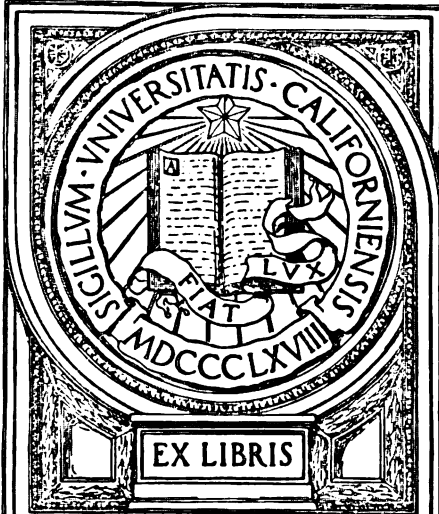
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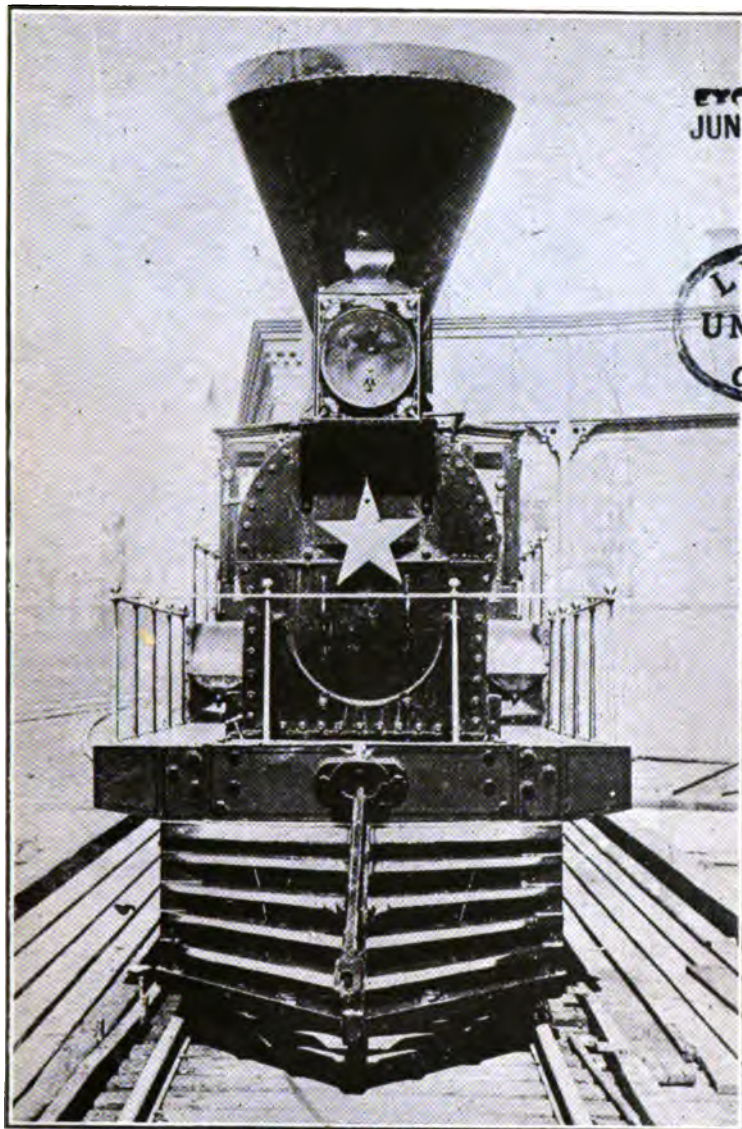
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JUN 8 1932



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THE RAILWAY AND LOCOMOTIVE
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Story of the Old Woburn Branch Railroad

From Middlesex Journal files and memory of the writer.

J. M. K.

Albert Carter of Woburn was driving a stage in the forties from Woburn to Boston. (Carter, a good old Woburn name, by the way.)

In April, 1844, a train began to run from the Woburn Watering Station to Boston at 7 o'clock every morning. During the summer of this year the Woburn Branch was building from Winchester to Woburn Center, two miles, and on December 13, 1844, the first engine was run over the Woburn Branch by Eli Cooper with the Superintendent, Mr. Stover for inspection. The first regular passenger train left on December 30, at 7:45 A. M. and returned from Boston at 4:45 P. M. in charge of Conductor Carter, Eli Cooper was Engineer, John Fuller, fireman and J. Kemp, brakeman. The first regular engine was the "Patrick", (a very appropriate name for a Woburn engine,) named for P. T. Jackson, the first President of the Boston and Lowell Railroad, although at the time of opening, the engine was laid up for repairs caused by running off the track at the Watering Station, a few weeks previously which accident caused the death of both engineer and fireman.

On the opening of the Branch the 7 o'clock Watering Station train was discontinued. The writer well remembers Mr. Eli Cooper during the later years of his life as he was a very well known citizen of Woburn and owned considerable property there. In February, 1860, by a slight accident to a freight train from Woburn a car was thrown down an embankment in Somerville near the Fitchburg Railroad and John Fuller had a shoulder broken. This was the same J. Fuller who fired the engine of the first passenger train. He was a familiar character for many years at the Center Depot. He lived in a little cottage by the old wood shed and I remember him very well. He used to turn the engines on the turntable and help to wood them up. He was a typical old-time Irishman and his son, Robert, climbed from the bottom of the railroad ladder to the position of conductor.

To Lowell August 1, 1860

August 1, '60 is a date that should be held in grateful remembrance by lovers of the "weed" as on this day a smoking car ran over the Branch for the first time. On the 22nd of this same month a brakeman of the Woburn crew was knocked from a car by coming in contact with the new "ice track" bridge at Main Street, over the line in Winchester, and badly injured causing later the loss of his arm. For many years large shipments of ice were made by the Boston Ice Company from their extensive ice houses at the foot of Horn Pond in Woburn. Very



WINCHESTER CENTER, 1851

small, square four wheel box cars were used exclusively for this service. Still another event occurred in this month which is interesting as throwing a side light on the amount of railroad traffic in those early days. Under the heading "excursion" the Journal says: "A party of ladies and gentlemen of Woburn visited Billerica by means of a hand-car on the Boston and Lowell Railroad. A good time was had and the party returned at 2 A. M. on Friday." Those who remember the clumsy old

hand cars of the '60's can well believe that the men of the party literally "worked their passage." What a contrast to the neat -track-cars of today that go whizzing along with no "visible means" of propulsion!

In October of this year ('60) the locomotive of the 7 A. M. train from Boston ran into and through the depot making a hole in the end of the building. "The engine was not much damaged: cause, rails wet and brakes did not hold." As the accident happened to the old wooden depot we can understand how an engine would easily burst a hole through the end wall of the train shed. In later years after a brick depot had replaced the wooden one the cars were run by a "flying switch" and the engine remained outside of the building. The action of the old hand brakes was slow and feeble. Just four months later, or in February '61, the same stunt is repeated. This time they succeeded in knocking out a corner of the train-shed. Perhaps they were in a hurry to get across the street that separated the depot from the old railroad grocery store kept for years by Woburn's most genial and popular merchant, Mr. Alex. Ellis, in which case we can excuse their haste! We note just one more rather ludicrous happening of an unusual character in this year, and one which could hardly occur today. At this early day a late, or "theatre train" was run which left Boston at 11:30 P. M. for Woburn and made all the stops. (Thirteen in later years as the writer well remembers.) On a "dark and stormy night" in December of '60 the late train was amb'ling along as usual and had proceeded beyond Winchester without incident, when it was noticed by one of the train crew who had remained awake that they seemed to be passing an unusual number of bridges. With remarkable presence of mind he immediately started an investigation which revealed the fact that instead of taking the track to the left at Winchester for Woburn they had continued on the main line and got on to the Stoneham track which diverged to the right at East Woburn. The Journal says: "the whistle shrieked and the brakes were applied and in a few minutes they were on the track for Horn Pond Station." What a fine subject for the movies: "How the Late Train lost its way," in five reels!

In January of '62 a rather peculiar accident happened on the Branch. One morning when the 6:30 train left the depot at

the Centre, the jarring started a detached car which was in the depot and it followed on, catching up and coming in contact with that train at Winchester. The concussion was quite severe. The two miles to Winchester is all down grade. The same issue of the Journal records that a few days before "A train on the Central Vermont R. R. was brought to a stand by force of the wind when coming up grade near Winouski Bridge. It was detained twenty-five minutes before it would proceed". These two incidents, occurring so near to each other in point of time, show clearly the superiority of the mechanical equipment of the B. & L. whose cars could propel themselves, over that of another New England Road not only whose cars, but the engine as well, could be stopped by a January breeze!



THE "CLOUD" AT GREEN ST. WOBURN.

In December '63, a correspondent of the Journal objects to the smell of "beam-house" by loafers at the Centre depot on arrival of evening trains. Woburn was pre-eminently a tannery town. Any one who has ever visited a tannery and passed through the beam-house where the hair and "fleshings" are removed from the wet hides, will sympathize with the correspondent and agree that his "point of order" is well taken!

In July '65 an addition of fifty feet was put on to the outer end of the old station and the platform extended to accommodate the increased traffic of the town. This old building is remembered by old time residents of Woburn as the Depot that wit-

nessed the departure and triumphant return of Woburn's soldiers of the Civil War. How well the writer remembers standing on the old platform in the late '60's and gazing at the old wood-burners as they were backed up and coupled to the 5 P. M. train for Boston! Could the "spicy gales of Araby" give the delight that one whiff of that old wood-smoke would afford?

In July '66 the B. & L. engineers are ordered to whistle at all crossings. As there were four crossings in a little over a mile from Cross Street to the Centre the frequent whistling was considered a nuisance by many citizens at first, but they soon became accustomed to it.

In November of this year the Horn Pond station was moved to the east side of the track to make way for the foundry spur track. In August of the next year ('67) work is started on a new brick depot on the site of the old wooden one. The building is now (1921) used for meat storage &c. The first train ran from this depot in May '68.

In November of this year occurred an incident that is well remembered by the writer. As an early evening train was coming into Woburn from Boston drawn by the "Factory Girl" her whistle blew continuously from Cross Street to the Centre owing to the sticking of the whistle valve, causing an alarm of fire to be sounded. In those days the fire alarms were given by the blowing of the whistle of the nearest tannery and soon three or four other tannery whistles joined in the chorus. This was before the installation of the telegraphic fire alarm system.

In October '69 the old wooden round house is torn down and a brick one large enough to hold four engines is built nearby. About this time or soon after coal took the place of wood for fuel in the engines.

December '70 the Journal says: "It is twenty-six years since the first train was run on the Branch. Messrs: Carter, Conductor, and Fuller, Fireman, on that train are still living".

In July '72 the locomotive "McNeil" on a trip from Boston dropped her grate on the track between Woburn and Winchester, delaying the train a short while. The "McNeil" was a small light engine and ran into Woburn several years. A little later the "Higginson" got off the track at Richardsons Row (Cross Street). In July '73 the down freight from Woburn, engine "Wilmington" hit the up freight at Winchester because

of a misplaced switch. Several freight cars were smashed and one man was injured.

One night late in January '74, a peculiar accident occurred on a train bound to Woburn at Mills Row Station, Somerville. John Maxwell of Woburn was "fooling" on the platform of the car in motion when he lost his balance and rolled between the side of the car and the board side of the bridge, which nearly resulted in throwing the car from the track. He was not seriously injured. This young man Maxwell was known to the writer. His father was a prominent leather manufacturer. In February '74, one day as the 10 A. M. passenger train from Boston to Lowell dropped the rear car at Winchester, making a flying switch, the brakes failed to hold and the car with its passengers for Woburn collided with the rear end of the train standing at the Winchester depot. Though the platforms and windows were broken and the passengers were badly shaken up, they suffered no serious injury. The incident caused drastic comment in the Journal.

May '75, "Wat" Brown the veteran engineer wrote an historical letter to the Journal from Nashua where he was then living, on the Fortieth Anniversary of the opening of the B. & L. R. R. Mr. Brown was a gate tender at the Church Avenue crossing in Woburn during the latter part of his life. He was an original character and a bachelor. Some one asked him once why he had remained single. He replied: "Well, it is this way: them that I would have wouldn't have me, and them that would have me the Devil wouldn't have". He showed me on one occasion at the gate shanty the wooden model (of the first Lowell construction train) that he made with his one hand. He lost an arm in the R. R. service.

The locomotive "Stoneham" got off the track at the Woburn turn-table one day this month. This was one of the handsomest engines on the B. & L. Road. It was built by Hinkly in 1872. Mr. E. J. Haggins, a Woburn engineer used to run her. A very fine picture of the engine was taken by Mr. Chas. Taylor a Woburn photographer, not now living.

In July '76 one day the six o'clock train from Woburn was switched by mistake on to the engine house track at East Cambridge. As the air brakes had been disconnected Amos Pettin-gill, the engineer, on the "Logan" found himself helpless to

prevent a collision with the engine "Concord" standing on the track. He whistled for brakes and he and Cy. Chase the fireman jumped off. The engines came together with great force and the "Logan" was badly damaged, but no one hurt. Amos Pettin-gill was the writer's ideal as a boy of the Railroad Engineer. At a little later period he, with his fireman, would often let me ride on the "Logan" around the freight yard and on one memorable occasion I made the trip in the evening from Boston to Woburn in the cab. Once on a pleasure trip in Ver-



THE "ARLINGTON" (B. & L.) BACK OF THE OLD BRICK MAIN ST. DEPOT, WOBURN.

mont in traveling on a mixed train between Bellow's Falls and Rutland, the engineer let me ride for a few miles on the engine. Railroad rules were not as strict in those days as they are now. Mr. Cy. Chase who was the fireman who figured in this accident soon became an engineer. He had lived many years in Woburn and is now (1921) retired. He has a son Charles who is an engineer.

In August of this year ('76) the names of three Woburn stations were changed. Richardson Row to Cross Street, Horn Pond to Woburn Highlands, and Watering Station to Walnut Hill.

In September '76 sparks from the engine coming through an open window set fire to the clothing of a woman passenger from Woburn. Conductor Young extinguished the blaze. Conductor "Tom" Young the Harts (the father and son) and Dick Carton lived in Woburn, ran on the Branch trains for many years. Mr. Carton is now retired.

In October '76 the engine "Lowell" had her stack knocked off by running into Jos. McDonald's coal shed up the incline track.

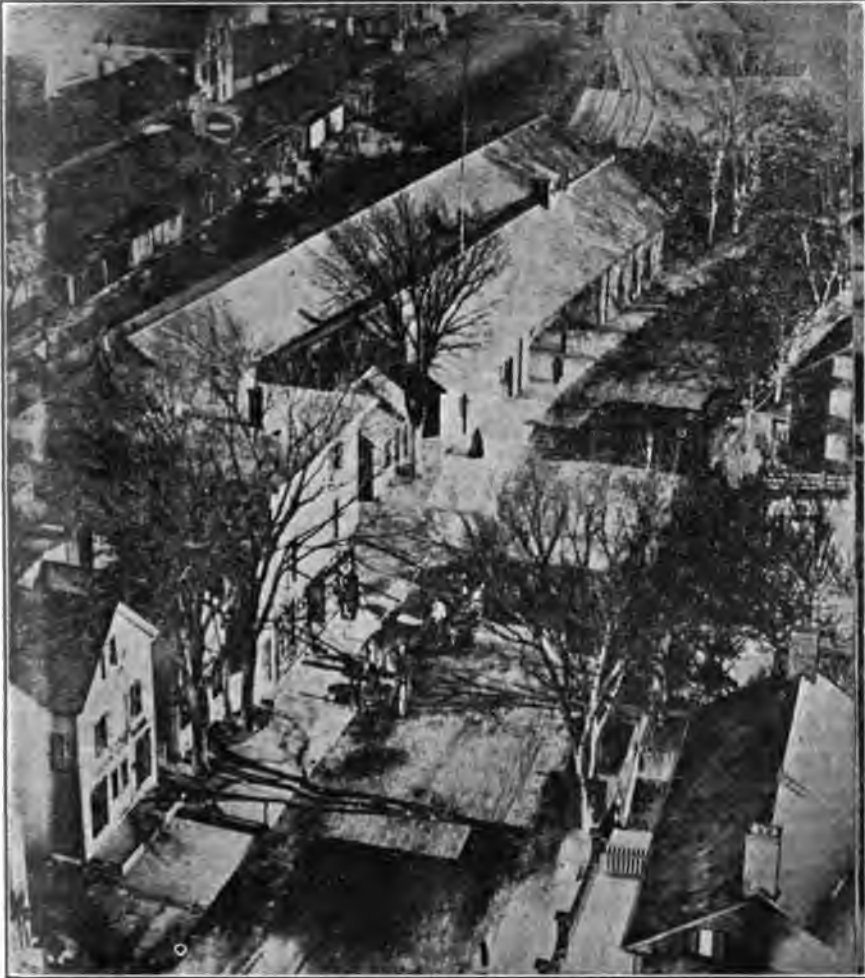
On a day in January '77 a passenger car got on fire at the Woburn Depot. It was hauled down near Green Street crossing and burned there. This seems a strange proceeding as it would seem that the fire engine could have been easily used in the yard.

In May '78 ground was broken at North Woburn for a new Railroad to Boston to be called the Mystic Valley R. R. as Woburn felt the need of a competing line. Considerable cutting and grading was done in Woburn west of Horn Pond, work continuing for about two years and then the enterprise fell through.

In August '78 during a heavy thunder shower the ticket seller at Cross Street was killed by lightning. In November of the same year the engine "Milo" is damaged on a side track at the Bryant and King tannery Conn street by cars left on main line running into it as brakes did not hold. The stack was knocked off. The "Pawtucket" was run while the Milo was being repaired. July '80 "The ringing of the depot bell to announce the departure of trains is discontinued as it interferes by its noise with the telegraphing". The little old depot bell was bought by the Swedish Lutheran Society for their church. In May '81 a misplaced switch sent a passenger train into some bark cars at Green Street. Air brakes were set and engine reversed. A passenger on the platform was crushed. This accident justifies the rule forbidding passengers to ride on platforms.

On November '83 a car of bark got off the track near Green Street. For many years cars of bark constituted a large part of Woburn incoming freight, but in recent years a change in

the tanning process had done away with its use in Woburn, the cars and large piles of bark at tanneries are seen at present in western Pennsylvania. In the writer's boyhood days unloading



THE FIRST WOODEN DEPOT IN MAIN ST., WOBURN, FROM A
STEREOSCOPIC VIEW.

of bark cars was steadily carried on at the freight yard and tannery sidings and "bark teams" were a familiar sight in Woburn's Streets.

May '85 the work of grading and filling for the extension of the Branch or Woburn Loop is in progress, extending from the end of the track at Main Street, across Pleasant Street to the Town Meadow and beyond to Central Square and North Woburn to a junction with the Main Line at South Wilmington. In the construction work a quicksand was encountered at the edge of the Town Meadow back of the Library that required repeated filling before the road bed became solid. In October '85 the locomotive "Hillsboro" on the 6:30 train from Boston of two cars ran into some stationary cars on a side track near the W. Highlands station. This station is located at the lower end of the same street (Fowle St.) on which the writer lived for thirty-eight years. It received its first name "Horn Pond" from the following circumstance: When the Branch was first opened Engineer Cooper used to pick up passengers where any stood by the track awaiting him. Sons-in-law of Sturgis, a prominent citizen of Woburn, who lived at the old Horn Pond House, by the Middlesex Canal Lock at Horn Pond, used to walk to the train and stand waiting where the station was afterward placed, and this led to the name "Horn Pond" for the station. The engine "Patrick" was an eight ton engine without a cab. It was built in Lowell and Eli Cooper helped in its construction. It could haul twenty loaded cars upgrade. Cooper had made the trip from Boston to Woburn, ten miles, with two cars in seventeen minutes. At first there were only three stations, Winchester, West Medford and East Cambridge. In November '85 the last rail of the first track of the Loop was laid. Early in December of this year, North Woburn had a big celebration over the completion of the Loop. The first train was drawn by the engine "Mars". At the Woburn celebration of the opening of the Loop a few days later the train with officials of the Road was drawn by the locomotive "Ivanhoe", Engineer Mead with train conductor Jud Hart. The fine new brick depot on Common and Pleasant Streets was completed in September '86 and one was building at Central Square in October. In this month, October '86, Conductor "Dick" Carton took the farewell train from the old Main Street Depot on a Sunday and on the next day ran the first train from the new station.

The Journal adds: "Twenty-five years hence town historians will be found searching for this fact and will find it

here''. This prophecy was fulfilled by the writer of this sketch just thirty-four years later! So after an existence of nearly forty-two years ends the old Woburn Branch R. R. !

JAS. M. KIMBALL.

Mr. J. E. Alger of Reading, Mass., has written a very interesting letter commenting on Mr. Jacob's article on the New York & New England R. R., that appeared in our first bulletin

"I have read your article "The Story of the New England". I am a bit jealous about the history of the birth of the Charles River Branch Railroad. My family had an important part in the opening of that road. It was under the act of May 1, 1849, that the road began to be constructed. And the first section was built, not from Cook St. to Newton Upper Falls, but from Newton Upper Falls to Brookline, where it connected with the Brookline Branch of the Boston & Worcester Railroad, and was opened for travel November 1852. Cook St., as a station did not appear until the road from Brookline to that place was double track and became the circuit between Boston and Riverside of the Boston & Albany R. R. And here at the time of the building of the Charles River Branch Railroad is where my family comes in.

The construction of that road began at the gravel pit near Pettee's Mill's at Newton Upper Falls. James M. Alger, my father, took the Bury engine "Lion", built in 1835, out to Newton on the main line of the B. & W. R. R. and then "teamed" her across country to the gravel pit, and began to haul gravel used in constructing the road, and so when the road was opened in November, 1852, he was the engineer who ran the train on the opening days, both when the people were given free rides and when the road was opened for public travel, and he had the "Lion" for his engine. This I know, for he told me all about the opening day. The road was operated by the Boston & Worcester R. R. for a number of years, after it became the Charles River R. R., and the New York & Boston R. R. in Massachusetts. In their second annual report, Dec. 30, 1856, the directors state in regard to equipment costs, 'Nothing by this company for any of these, all being owned by the Boston & Worcester Corporation, which company will make the necessary returns'. 'Length of road 32 miles, with 8.6 miles completed and 23.4 miles unfin-

ished.' This 5.6 miles completed road was from the junction of the road in Brookline going to Newton Upper Falls and beyond. And this report of the New York & Boston Railroad Company in Mass. also includes in the heading, "Including the Charles River and Charles River Branch Railroads."

As you state in your article it was October, 1863 when the road was opened to Woonsocket, R. I. I do not remember the year that the Boston & Worcester gave up the operation of the road. After we moved to Chestnut St. in Brookline in 1859, as I recall, Henry Hitchcock was still running to Needham and back the "Mercury" a Boston and Worcester engine, built by Hixson in 1845, entering service March 31st. Records will show when the B & W R. R. gave up operation of the road. Before we moved from Brookline, May 1864, the "Hiram Allen" and "Marshall S. Rice" were hauling the trains over the road. Father changed runs with Henry Hitchcock very soon after the opening of the Charles River Branch R. R., Hitchcock taking the run to Newton Upper Falls, and father the Brookline Branch train. He brought the "Lion" along and she went into the shop very soon after, and came out in August 1853, as the "Brookline". He had during her sojourn in the shop for one locomotive the "Lowell" built by the Locks & Canal Co., Lowell, Mass., in 1836. The "Brookline" was his regular engine until he took the 7:40 A. M. out of Worcester, March 7, 1864. The Brookline Branch was still a single track road when I fired there until April 11, 1874, and the Boston, Hartford & Erie R. R. came down into Brookline over "single iron". And I presume it remained single track until the building of the Circuit. When I fired on the Brookline Branch the "Hiram Allen" and Marshall S. Rice" had changed names and were still in service as "Rescue" = 8 and "Economy" = 9. These two engines were on the Needham trains. So much for the birth of the New England!

The above letter of Mr. Alger's is exceedingly interesting and valuable. Letters of this kind are welcomed by the officers and we are only too glad to reprint them here for the benefit of our readers.

Single Driving Wheel Locomotives

J. W. MERRILL.

A type of locomotive, which at one time was quite plentiful, and has now entirely disappeared, was the single driving wheel engine. In the early forties, Hinkley & Drury built a large number of this design and I regret that I have not a photograph as they appeared when new. The Old Colony railroad had some of this type, Gov. Bradford, Mt. Hope and Neponset, weighing about 14½ tons, with 42 inch driving wheels. I am glad to say I can show a photo of the "Uncle Tom" of the Fitchburg &



EASTERN R. R. #5 "MARBLEHEAD."

Worcester R. R. which hauled trains between Sterling Junction and Fitchburg for many years.

There are many tales of fast runs told of the #5 Marblehead on the Eastern R. R. by engineers who ran her when new.

The engine was built in 1841 at Philadelphia. The photograph as shown is after she was rebuilt in 1856 and had a new boiler put in by John Thompson.

Another early single driving wheel locomotive of considerable interest was the "Roger Williams" built by the Lowell Machine Shops for the New York, Providence & Boston R. R.

This engine drew the first train from Providence to Stonington when the road was open for business November 1837. When built the length of the boiler was only 7½ feet. The driving



NEW YORK, PROVIDENCE & BOSTON R. R. "ROGER WILLIAMS."



PHILADELPHIA & READING RY. #385.

wheels were 5 feet in diameter, cylinders 11x16 inches and a total weight of 9 tons. In 1846 the engine was rebuilt and enlarged by Wm. E. Rutter, the master mechanic of the road, 3 feet was

added to the length of the boiler tubes and frames and the cylinders were increased to 13x16 inches making the weight 12 tons.

It is interesting to think how these locomotives would look today, along side of the monster 166 ton Pacific engines, which haul fifteen steel cars. Some of the railroads in the '80's experimented with single driver locomotives with trailing wheels. The Philadelphia & Reading had the Baldwin Locomotive Works build them an engine with this arrangement of wheels. The idea



FITCHBURG & WORCESTER R. R. "UNCLE TOM."

was concerned thru an experiment of the road in disconnecting the front pair of driving wheels on an Atlantic type of engine. This locomotive was noted for her speed but the service required much more powerful engines so she was changed over into an Atlantic type.

All railroad men in New England remember the "Onward" built by the Hinkley Locomotive Works for the Swinerton Locomotive Driving Wheel Co. This locomotive was constructed in 1887 and it was expected she would outclass all other types in her hauling capacity. The peculiarity of this engine was the

driving wheels, the circumference of which was a series of flat surfaces. It was claimed that the engine would have greater adhesion, and thereby haul more cars. This wonder was tried on a number of trains but was never a success and regular tires were put on the driving wheels.

The Portland & Rochester R. R. extending from Rochester N. H. to Portland Me. bought the engine and it ran for a number of years in passenger service. When this road was leased, to



THE "ONWARD."

the Boston & Maine the "Onward" was rebuilt at Manchester into an eight wheel American type by substituting a pair of driving wheels for the trailing wheels.

After this locomotive had hauled the milk train on the Central Massachusetts division of the Boston and Maine for a number of years it was scrapped. I suspect the real reason the old engine was put out of its misery was because she had a Belpaire firebox, a type not liked on the B. & M.

The Railway and Locomotive Historical Society

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Copies of our bulletins can be procured from either Mr. Herbert Fisher or Mr. J. W. Merrill.

In presenting this third bulletin, the committee in charge of publications hopes that it will be received with as much interest as our first two bulletins. The publication of extracts from the Mason and Taunton Locomotive works lists has been the subject of much pleasant correspondence and letters pertaining to either of these interesting builders are always welcome. With a view of working up the history of the motive power on the present New Haven system, additional information is desired on the early power of the New York & New Haven, Hartford & New Haven and the early roads in the state of Connecticut. This will appear in our bulletin as soon as it is complete. The committee welcomes any suggestions that our members care to make, for the success and the interest sustained in this bulletin is just what our readers care to make it.

The Annual Meeting of the Directors of your Society was held in the Ticket Office of the South Station, Boston, Mass., on Monday evening, January 9th. Some slight changes were made in our Constitution and these changes should be in the hands of our members at the present time. It was voted to increase the Board of Directors from seven to nine men, and Mr. W. O. Moody, Mechanical Engineer, Illinois Central R. R., Chicago, Ill., and Mr. Benj. Thomas, Ass't. Superintendent, W. N. & P. Division, Boston & Maine R. R., Nashua, N. H., were unanimously elected to the new offices. Plans have been made to strengthen the Society and to arouse an interest in its work. In Boston, it is hoped that an exhibition of photographs and early railroad data and material can be placed in the Boston Library. The recent exhibition at Lowell, Massachusetts has shown that there is more than a passing interest in this subject. Additional interest can be aroused in the newspapers and me-

chanical journals. The surface has just been scratched and there is no doubt but there are more people interested in this subject than our membership lists show. Reports from the Recording and Corresponding Secretaries and Treasurer were read and approved. The first year has passed and the Society is just commencing to hit its stride. Let us all help to push it forward!

In a letter received from Mr. Elmer B. Tolsted, President of the Chicago Society of Model Engineers, Maywood, Illinois, those of you who are interested in this work may be glad to learn of this Society. The Chicago Society is now accepting non-resident members with the idea of eventually turning these into a National Society and the Chicago Society becoming a branch of the new National Society. The possibilities of co-operation between this society and our own will work an advantage to both parties and our members who are interested in the models in this country, many of which are of old locomotives should not fail to avail themselves of the assistance of this society. Mr. Tolsted will be glad to give any of our members additional information in regards to the objects of that Society and our members are at liberty to address him direct in this matter.

It is a curious thing in this country, that there has never been a locomotive building company west of the Mississippi River, tho' some of our western roads have built some of their power in their own shops. Nearly all the locomotives have come from the east, and in times gone by, our eastern locomotive builders have sent to these roads some very handsome machines. The railroads in the Middle West and South have an interesting history and have had some very interesting power which will be sure to be of interest to our readers. Mr. Yeaton has started the subject by asking for information in regards to the Marietta & Cincinnati R. R. Other questions are in order. Some of our members located in the Middle West must have some interesting history relative to the roads in their vicinity and these members need not feel at all backward in thinking that we in the east will not be interested. While New England is probably richest in history of early railroads it also probably the best known. As the object of our publication is to interest all of our readers, material relative to these mid-Western roads would not be amiss.

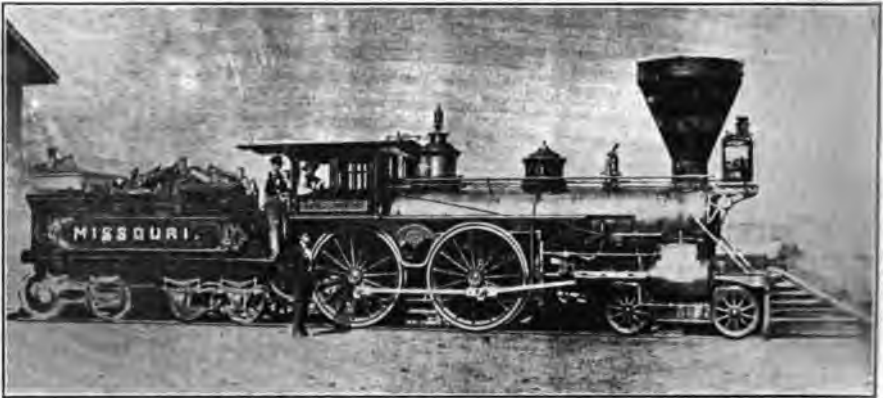
Some Famous Runs and Some Famous Engines

By CHAS. E. FISHER.

The recent dash made by the Boston & Albany Railroad, half way across the state of Massachusetts has caused the writer to mention others of earlier date but of equal interest. The dash made by the Boston & Albany was an emergency run, a special train consisting of a baggage car, coach and parlor car, all steel, with a big Pacific type locomotive, #532, made the trip from Springfield to Boston a distance of ninety-nine miles in one hundred and thirteen minutes. The run was made at night in order that some photographs showing the recent disaster of the Knickerbocker Theatre in Washington, D. C., might appear that same morning in one of the Boston papers.

The American railroads have always showed themselves prepared for an emergency, but in the early days fast runs were made by rival roads in order that they might carry the United States Mail, not so much for the remuneration as for the honor. One of the earliest of these cases is of interest. In 1859 the Hannibal & St. Joseph R. R. had been completed, and in 1860, under certain conditions, this road was selected to carry the United States Mail. A test trip was to be made, to demonstrate the ability of the road to handle the contract, and on April 3, 1860 this historic run was made. Orders were sent out to the foreman to spike down the switches and no trains were allowed on the line for one hour ahead of the fast train which was called the Pony Express. Fuel agents at Macon and Mooresville and other places were notified to have a stock of cordwood on hand which could be emptied into the tender in less than no time. The locomotive, named the "Missouri", was selected to make the trial run, "Add" Clark, one of the best engineers, was at the throttle. Mr. Clark was given orders to make a record that would stand for fifty years, and half a century has passed and the record of the Pony Express still stands in spite of heavier equipment and powerful locomotives. Mr. Clark was not told to be careful. The only harm that could happen to him would have been a failure to make time, and he understood it. The officials of the road, accompanied by one or two others were in a single coach with the mail, and the train pulled out at Hannibal

amid the waving of hats and the cheering of a mighty crowd All the way across the state, at every station and cross road, it was greeted by assemblies of men, women and children, many of whom had arisen in the early morning hours and journeyed a long distance to see the greatest sight of the times. As the Pony Express shot by a station, rocking like a kite in a gale, could be seen the agents pushing the crowds back from the platforms and showing their importance in connection with the mighty event. All the way across the country it was like some grand ovation to a conquering army. There was inspiration enough to make Engineer Clark perform miracles with his woodburner engine. When the train pulled in and stopped amid the waiting



SHE HAULED THE PONY EXPRESS TO A RECORD.

thousands at the St. Joseph depot, Engineer Clark, pale, greasy and grand, stepped majestically from his iron horse, which stood panting like a blooded racer. He was the hero of the hour! He had covered the 206 miles from Hannibal to St. Joseph in a little more than four hours, a performance which at that time was little short of miraculous and which, even at this day, can be considered as an exceptionally fast run. It was a big day for Engineer Clark and the Hannibal & St. Joseph R. R. which had secured a big mail contract by the day's work.

The locomotive that made this wonderful run was one from the shops of that famous builder, William Mason, Taunton,

Mass. She was Mr. Mason's eighty-fourth locomotive, leaving his shops on December 10, 1858, with 15x22 inch cylinders, 60-inch drivers and had a weight of probably 54,000 lbs. This locomotive, as will be seen in the illustration, was a handsome machine, and one of five Mr. Mason sent to that road.

Another famous run made by a Mason locomotive was on the old Lake Shore & Michigan Southern R. R. The "Vanderbuilt White Mail", which ran over the New York Central & Hudson River R. R. from New York to Buffalo and from there to Chicago over the Lake Shore & Michigan Southern was one of the important trains at the time. Due to a delay in the train west of Cleveland, the train arrived at Toledo late, and on the



L. S. & M. S. SAXON, #136.

early summers' morning of 1883, the locomotive "Saxon" made a faster run from Toledo to Elkhart than was ever made at that time and it was many years before it was beaten. The locomotive "Saxon" was built by Wm. Mason on March 21, 1872 and was his 447th locomotive. She had 17x24 inch cylinders, 60-inch drivers and weighed a little over 60,000 lbs. She was one of the most graceful machines ever built by Mr. Mason.

In 1847, service from Boston to New York via Fall River, known then as now, as the Fall River Line, was inaugurated. This "Steamboat Express", from point of service, is the oldest of the fast trains in America. Because of its equipment and location the line prospered and the "Steamboat Express" running

from Boston to Fall River Wharf became an exceedingly heavy and difficult train to handle. In 1883 there was constructed in the shops of the Old Colony R. R. at South Boston, the engine "Pilgrim", with 18x22-inch cylinders, 60-inch drivers, and a weight of 88,150 lbs. This locomotive was the first of the heavy passenger engines used on our roads today, and experts from other roads came to view this new monster of the rails. She was far from a "monster" compared with our modern locomotives, yet she handled that ten car train and sometimes more with ease. She was the tenth locomotive to be assigned to this train since its inauguration, the others were the "Boston", "Middleboro".



"PILGRIM."

"Hudson", "Pilgrim" (the first one bearing this name), "King Philip", "Old Colony", "Royal Turner", "Falmouth" and "Plymouth Rock" and it was only when the train grew heavier that she gave way to the "Dorchester" and later the #232. Those who have ever travelled the Fall River Line of the late eighties, and early nineties remember the two steamers leaving Fall River and New York, from each city every night and remember the length of this train and although the Old Colony had several trains from different points that connected with the boats there was never but one "Boat Train" as she was dearly called by the Old Colony men.

The #999 of the New York Central & Hudson River R. R. is undoubtedly the most famous locomotive in America, if not the world. She was built in the West Albany Shops of the New York Central with 19x24-inch cylinders, 86-inch drivers and weighed 124,000 lbs. No boy is not a real American unless he has heard of the "Number Nine-ninety-nine"!

Two years after the famous "999" made this wonderful burst of speed and the New York Central held the record of the fastest long distance run, between New York and Buffalo, the officials of the Lake Shore & Michigan Southern R. R., determined to run a test train between Chicago and Buffalo to see what they could do.



L. S. & M. S., THE FAMOUS #564..

Preparations were made, engines were groomed, the tracks cleared, and in the small morning hours of October 24, 1895, this test train left Chicago, and the hopes ran high on that official train. The run in detail is interesting, but too long to be repeated here. Mark Floyd and his brother engineers with their big eight wheelers did their best, but frosty rails out of Chicago, a broken rail near Toledo and a sulky engine had turned the tables against them and despair had settled over the group of officials when the train pulled into Erie. But sometimes when things look blackest, there arises a man in the emergency to pull things through. There had been assigned to this end of the run a little ten wheeled locomotive, almost four years old, and it

was with disgust when the officials remembered the assignment ; because they figured that by the time the special train pulled into Erie the fastest running would be over. Disgust changed to amazement when two miles outside of Erie, "Bill" Tunky and the #564 hit a mile a minute gait, and amazement changed to fear as they tore around curves, bellowed through tunnels and barked over the bridges. It was as one official said, "You tasted your heart"! And as the special drove along at this terrific pace the millionaire guest in his private car, the only cool man in the party, said they would reach Buffalo on the proposed schedule with half a minute to spare. He was just four seconds out of the way, for when the train dashed across the line at Buffalo, the #564 was just twenty-six seconds ahead of the proposed schedule, and the officials, well, they didn't do a "thing" to Tunky. The figures of that remarkable run are of interest:

86 consecutive miles at the rate of 72.92 miles per hour.
 33 consecutive miles at the rate of 80.60 miles per hour.
 8 consecutive miles at the rate of 85.44 miles per hour.
 and the highest speed attained was 92.3 miles per hour.

These are a few of the famous fast runs made in this country by our locomotives. There are others of equal interest and importance. Some have already been forgotten and as time passes they will fade from our memory.

As if in connection with the run mentioned at the beginning of this article, the same Boston daily paper chartered a special train on the night of March 7th from New York to Boston, via the New York, New Haven and Hartford R. R. The running time was as follows:

	Arrive	Leave
Grand Central Terminal, New York		7.25 P. M.
New Haven, Ct.	8.54 P. M.	8.59 P. M. 72 miles
New London, passed		9.51 P. M. 51 miles
Providence, R. I.	10.54 P. M.	10.57 P. M. 62 miles
Boston, Mass.	11.42 P. M.	44 miles

The special train consisted of two steel coaches and was drawn from New York to New Haven by electric locomotive #014. From New Haven to Boston, one of the Pacific type that

handles the Shore Line express trains, #1391, made 157 miles in 163 minutes.

This record is of interest in our modern day affairs, for it goes to show that our transportation companies can be relied on in cases of emergency. Years ago a fast U. S. Mail run was made over the old Air Line from Boston to New York via Willimantic and New Haven in almost four hours, the distance via this route is 213 miles, and while this last run will not equal this old run of nearly twenty-five years ago, it does credit to this New England railroad and to all of the men who made this run. It should be noted that this special did not stop at New London, Ct., and of course, had no reason to stop at Back Bay. This is the only time that a Shore Line train did not stop at New London for water.

The Exhibition at Lowell, Massachusetts

The exhibition of old locomotive photographs, litographs and other material relative to early railroads and railroading was a huge success. Held in the Whistle-House, the exhibition lasted for several days and caused widespread attention among the people and the press. Photographs were loaned for exhibition purposes by Messrs. Merrill, Spaulding and others and many rare old time locomotives were found reproduced here.

The widespread interest and comment that this exhibition aroused is particularly pleasing to the officers of this Society, for they firmly believe that there is a far wider interest in this subject than appears on the surface. Arrangements have been made with the authorities in charge of the Boston Public Library for an exhibition, similar in detail, but much larger and wider in scope, some time this coming fall. Mr. J. W. Merrill, #40 Kilby St., Boston, Mass. is in full charge of this exhibit. Members living in or near the city of Boston need no invitation to come. Announcement as to date will be made later and members who wish further details will receive them from Mr. Merrill.

Question Box

Mr. H. P. Yeaton, #1104 Allison St., N. W., Washington, D. C. is trying to secure some data on the locomotives of the Marietta & Cincinnati R. R. He states that this road had 6 Souther, 3 Essex, 1 Hinkley and 2 from the Lowell Locks & Canal Co. and asks if any of our members have any records of these engines that would give the size and date built. He has located the following:

Built by Souther

- #1 Ohio
- 2 Virginia
- 2 John Madaria
- 3 Clinton
- 4 Washington
- 5 Scioto

Built by Essex

- #6 Lion
- 31 R. R. Seymour
- 32 Jacob Hyre

Built by Hinkley

- #12 Henry Clay

Built by Taunton L W.

- #7 Hamden
- 17 Hocking
- 47 Wm. S. Nye

Built by Lowell L & C Co.

Rockingham
Thomas James.

Mr. G. F. Starbuck, Waltham, Mass. asks "What has become of any or all of the models of railway rolling stock that have been exhibited from time to time? Mr. Scott of Providence, made a large number of models of a Rhode Island locomotive

on the Central Vermont R. R., giving them various names. By dropping a coin into a slot the wheels were made to revolve and a music box in the stand was started to play. One of these models, bearing the name "Aeolus" was placed in the Boston & Lowell Railroad station. There have been also, several models exhibited at the Charitable Mechanics' Association fairs, some of them operating by steam. Doubtless there are many models once centers of attraction now laid away in obscure places."

Answer by J. W. Merrill. "One working model is now for sale in Boston. It is a Manchester model of about 1856, price \$450.00". Answer by C. E. Fisher—perhaps the proposition of the Chicago Society of Model Engineers, Mr. Elmer B. Tolstead, Maywood, Ill., President, would be of interest.

Mr. Harold D. Forsythe, Swamscott, Mass. asks "In a recent paper before the American Society of Mechanical Engineers the statement appears 'The container car was an outcome of the railroad congestion during the war, and was first put into operation last year.' Did not the Old Colony R. R. operate a container car for baggage on its Boat Train, thirty-five or forty years ago? Have not the Northern Railway of France and the Southeastern & Chatham Railways operated container cars on the London and Paris service? Information as to any early such cars will be very welcome now, while they are receiving so much attention. Answer by C. E. Fisher. I cannot answer for the London-Paris service, but I think it is done. On the Old Colony Steamboat train, the baggage was loaded into a crate with wheels and these were pushed into the baggage car. When the train arrived at Fall River Wharf these crates were pushed right onto the boat and in New York the next morning, they were then pushed right on to the wharf. The same was done for the eastbound trips. This was done to expedite the transfer at Fall River as in those days of competition with the Stonington and Providence Line steamers, every moment counted. With all due credit to the New York Central and the modern container car, I should say that the modern method was an improvement over the old Fall River Line "crates" as we call them.

The Illinois Central System

A little extract from "*What Every Employe Ought to Know*"
by W. O. MOODY.

The building of the charter lines of the Illinois Central was the result of daring imagination and was a monumental engineering feat for its day. Previous attempts by both state and private enterprise to build a Central Illinois railway had failed. The then largest railway system in the United States, the New York & Erie, was only 300 miles in length. Virtually all traffic moved along the east and west lines, to and from the Atlantic seaboard, and the success of a north and south railway, opening new trade routes, was held by many to be extremely doubtful.

There were no railway engineers of established reputation in the country. The capital involved was the largest amount that had been devoted to a single private undertaking in the United States at that time. It was necessary to import a great deal of material from England, shipping it from the Atlantic seaboard by primitive railways and canals, by rivers and wagon roads.

Central Illinois was an almost untouched prairie wilderness. There were few good highroads; most of the travel was by former Indian trails and newly made section roads, impassible for long periods during the winter storms and spring rains, when farmhouses and often entire towns were isolated. Labor was not plentiful.

Agricultural development had been slow. Mines had been opened but were limited on operation by lack of adequate transportation. Industrial activity was confined almost to the few cities.

The actual history of the Illinois Central Company dates from February 10, 1851, the day on which its charter was approved by the Legislature of Illinois. The charter was accepted and the company was organized at a meeting of the incorporators in New York, March 19, 1851. Three days later they elected Col. Roswell B. Mason as engineer and placed him in charge of construction. Surveying began immediately and ground was broken with ceremonies at Chicago and Cairo December 23 of that year.

The road's securities were received with confidence and the first issue of capital stock sold at a premium. This was due in part to the land grant, and also to the confidence which the early directors held as individual financiers.

The first section to be opened was a stretch of fourteen miles between Chicago and Calumet, which had been built with the aid of the Michigan Central to allow that road to enter Chicago, giving that city traffic connections with the east. It was completed May 15, 1852. Sixty miles of the road from La-Salle to Bloomington was opened May 16, 1853, and this was added to at intervals, until the charter lines were finally completed, September 27, 1856, by linking the gap of seventy-seven



ILLINOIS CENTRAL #31.

miles between Mattoon and Centrailia. The cost of the charter lines was \$26,568,017.61 or approximately \$37,600 a mile.

Compared with the present condition of the charter lines, construction and equipment was very poor. The road was built, however, according to the best standards of the time. Freight and passenger service was inaugurated on each stretch of road as it was completed. Two passenger trains a day were operated over important lines. The freight traffic was irregular, according to the demands of the season.

A suburban service between Chicago and Hyde Park was established early in the history of the railway, and later this was extended to Matteson, Blue Island and South Chicago. It had a great influence in developing Chicago's South Side as a

residence section. The suburban service played an important part in handling traffic for the Columbian Exposition.

The road received a setback with the panic of 1857 and the crop failures of 1858, but by 1860 these conditions had been overcome and the months immediately preceeding the Civil War were most prosperous.

Appleton's Railway and Steam Navigation Guide No 1, published July 1856 makes an interesting statement:—"At Cairo, the Illinois Central connects with Southern lines to Mobile and New Orleans and Mississippi steamers. When all these lines are completed, it will be possible for a traveler to leave the Lakes on Monday morning and take his coffee on the Gulf of Mexico on Wednesday morning; and that an expense which would barely defray the cost of a journey from Dublin to London, or Paris to Berlin." And today the "Panama Limited" of the Illinois Central makes the running time from Chicago to New Orleans in a little less than twenty-three hours!

The Illinois Central played an important part in the movement of troops and supplies during the Civil War. Under the terms of the charter the road was required to handle certain government traffic at reduced rates, but business in the later years of the war became prosperous and the road was offered more traffic than could be moved readily.

One of the most important effects of the Civil War was that business was cut off from Cairo south, and attention was turned to the development of feeder lines within the state of Illinois and extensions westward. Among the most important of the earlier acquisitions were the Dubuque & Sioux City Railroad and the Cedar Falls and Minnesota Railroad, both of which were leased October 1, 1867, thus supplying the western arm of the Illinois Central System through Iowa and establishing direct communication with the upper Missouri Valley.

Extensions south of the Ohio River began with the lease of the Chicago, St. Louis & New Orleans R. R. which dates from July 1, 1882. This road was formed by a consolidation of the New Orleans, Jackson & Great Northern R. R., extending from New Orleans to Canton, Miss., which was built before the Civil War, and the Mississippi Central, from Canton to Cairo, of which the part from Canton to Jackson, Tenn., was built prior to the Civil War. A line to Louisville, Ky., and a northern en-

trance into Memphis were secured September 15, 1897, by obtaining control of the Chesapeake, Ohio & Southwestern R. R. The actual completion of the rail traffic route from the Great Lakes and the upper Mississippi River Valley to the Gulf of Mexico may be said to have taken place with the opening of the bridge over the Ohio River at Cairo, October 29, 1889. Prior to this time north and south traffic had been transferred at this point by ferry. Throughout its history the Illinois Central has employed the policy of building or leasing tributary lines, centering its attention upon building up its immediate territory, rather than reaching out for a footing in new fields.

The names of the men who were connected with the early history of the Illinois Central have become illustrious. They were among the leading figures of their day. Robert Rantoul, Jr., successor to Daniel Webster in the United States Senate, was largely influential, as a director, in shaping the early financial policies of the road. Robert Schuyler, the first President, was possibly the leading railway executive of the period. Stephen A. Douglas and Judge Sidney Breese, United States Senators from Illinois, were early sponsors of the road and were instrumental in securing the grant of government lands. Gouverneur Morris and William H. Osborn were among the early directors, the former being one of the incorporators.

Col. Roswell B. Mason, builder of the charter lines, who later served as mayor of Chicago, was the first superintendent of transportation. He was succeeded by George B. McClellan, afterwards commander-in-chief of the federal armies of the Civil War.

And last, but far from least, Abraham Lincoln, during the early days of his law practise, was a local attorney of the Illinois Central Railway.

The Capture of the "General"

By H. P. YEATON.

One of the most thrilling episodes of the Civil War which divided the United States for four long sad years was the capture of the "General".

This Engine was a late product of the Rogers Loco. Works being built in 1856 and was regarded as one of the finest up to date locomotives at that time. It was an American type with cylinders 15"x22".

The capture of this engine was conceived by one James J. Andrews and call him what you will, he was a hero who will live in history as the man who first conceived and undertook the daring act within the enemy's lines during the war and with him will live the name of William A. Fuller, who frustrated the plan in the most daring raid of history.

Early in 1862 Gen. O. M. Mitchell was in command at Shelbyville Tenn. with 10,000 men and it was his plan to move south, take Huntsville and its stores and then move on to Chattanooga.

The Western & Atlantic R. R. with its connections was of supreme importance for supplying the Confederate Army with supplies and men from all points in the South. To cut off this avenue of supplies by capturing a train and destroy the bridges and railroad was conceived by James J. Andrews and had it been carried out would have been a hard blow to the Confederacy and Tennessee would have been in the Union hands.

Andrews laid his plans before Gen. Mitchell who being rather reluctant at first finally gave his consent. he proposed that Mitchell give him about twenty reliable soldiers, who with himself as leader, all dressed in citizens cloths to avoid suspicion, would make their way to Marietta Ga. and in that vicinity secure the engine either by stealth or force. This accomplished they would run immediately toward Chattanooga and on the way destroy the telegraph wires, bridges and track.

James J. Andrews was a native of Hancock Co. Va. but lived in Flemingsburg Ky. in 1859; he was a young man of strong character and full of energy and tried to locate as a school teacher, but finding no opportunity of this kind in Flemingsburg he took up house painting and it is said was very

successful. On spare occasions he taught singing. At the outbreak of the War he enlisted in the Union Army as a scout, and his good judgment and coolness soon made him very popular among his comrades.

He selected his little army of twenty one men from different regiments and he explained in detail to each man the mission that was expected of them and the possible dangers to be encountered and if they did not want to join him they were privileged to return to their regiments.

The twenty-one men thus selected all expressed their willingness for the undertaking. Three of these men were locomotive engineers and were given passes that they might meet Andrews that night for final instructions.

On Monday night April 7, 1862 after going into Shelbyville and dressing themselves in plain cloths, met by agreement in a thick woods where plenty of Confederate money was distributed and the plan of campaign mapped out. They were told that if they were detected while in disguise within the enemy's lines they would in all probability be hung as spies and another opportunity was given them to those who wished to "back out" if they deemed the adventure too risky. Not a man faltered.

On Thursday they were to be in Chattanooga, 100 miles away in time to catch the train for Marietta which Andrews informed them left there about 6 o'clock in the evening. They must make their way in twos and threes passing themselves off as Kentuckians going south to join the Confederate Army.

They must sympathize with the southern cause and talk about the "Lincolnites" but if caught in a tight place they were to say that they were from Fleming County as Andrews visits inside the enemys lines had taught him there were no southern soldiers from that part of the state. They were not to recognize each other when they met unless it could be done safely. With the last word from their leader, they separated to meet in Chattanooga or Marietta.

The names of these brave boys in blue were:—Marion A. Ross, Philip G. Shadrick, George D. Wilson, William Pittinger, of the 2nd Ohio; Samuel Robertson, Samuel Slavens, Martin J. Hawkins, Daniel A. Dorsey, John Wollam, Jacob Parrott, William Reddick of the 33rd Ohio, William J. Knight, Wilson W. Brown, Robert Buffum, William Bensinger, Elihu H. Mason,

John Scott, Mark Wood, John R. Porter, John A. Wilson of the 21st Ohio. William Campbell a citizen of Ohio and James J. Andrews. Hawkins, Knight and Brown were Engineers previous to the war. Campbell had come to Shelbyville to visit his friend Shadrack and intended to enlist, but before doing so this call for volunteers as outlined and he was permitted to join them. He was a young man of great stature and strength and in the work that followed was no small help. Thursday night was set for their reaching Marietta for on Friday Gen. Mitchell would be in Huntsville and the blows must fall at one and the same time.

As the battle of Shiloh was fought that day, the Confederates were to be given no time to recover, it was necessary then that every nerve be strained to succeed. A rain had set in and turned into a downpour and the several squads moved on in the darkness to reach Chattanooga for the time was getting short and they had many miles to cover. With the money given them by Andrews they paid for their accommodations as best they could secure and voicing sentiments they deemed pleasing to hosts, both willing and unwilling. At times two or three groups would come across each other at some farm house or cabin greeting each other as total strangers at first. At one place one of the boys tendered a \$20. gold piece as reimbursement to the head of the house and received \$38. in change, Confederate paper.

On Friday evening April 11, the brave little band weary and bedraggled took seats in the southbound train as it pulled out of Chattanooga, the cars were crowded with Confederate officers and soldiers, on duty and on furlough, some of them drinking and boasting of the victory at Shiloh.

With enemies all about them and the train rushing through the darkness still deeper into the heart of the Confederacy, some of the Ohio boys began to realize the fearful gravity of the situation as it applied to them individually. Though glory might await if successful, yet death awaited failure. But the buoyancy of youth does not remain long suppressed and they laughed and played their parts.

They managed to keep together when Marietta was reached in the middle of the night, and without arousing suspicion all took quarters in the same hotel.

It was discovered that Porter and Hawkins had arrived the day previous, not knowing of the change in plans.

On account of the rain and the roads all but impassable around Chattanooga, Andrews passed the word along that the work would be postponed till Saturday supposing that Mitchell would be delayed one day, but this proved a grave mistake as Mitchell had arrived in Chattanooga on time and caused a panic in the Confederate ranks and the trains were crowded to get the soldiers out of reach of the invaders.

Andrews ordered his men to take the train back at 6 o'clock the next morning and each man was assigned his respective place. The only arms carried were revolvers but there would be no shooting unless absolutely necessary. The Engine of the train they would board was to be seized at Big Shanty some 15 miles away at which point there were no telegraph facilities for sending an alarm ahead, and at which place making the work easier, there was a scheduled stop of twenty minutes for breakfast.

Leaving orders for an early call they retired, some to sleep, some to toss impatiently, and some to think deeply.

Just at daylight on Saturday April 12, 1862, they were on the road again northbound, the road they intended to destroy but many miles between them and their friends in blue. The train left Atlanta for Chattanooga at 6 o'clock and at Marietta Capt. Andrews and his party of 19 got on board in groups of three or four with tickets to different destinations and scattered themselves through the train. It was discovered that Hawkins and Porter were missing; they had not been awakened in time.

Soon Big Shanty seven miles away was reached and the call for "20 minutes for breakfast" was announced. The time had arrived for the capture and quietly the little army stepped off and arranged themselves on the side of the train opposite the depot near the engine. The station called Big Shanty now Kennesau from Kennesau mountain adjacent, originated from the fact that shanties had been erected for the construction force under Major H. A. Butler and reached by a heavy grade and was called Big Shanty Grade and later Big Shanty. The engine on this train was the "General" and by a fortunate circumstance the train consisted of three empty box cars next to the engine and ahead of the coaches and Andrews quickly noted the situation.

A Confederate camp was located close by and the great risk

to be run in getting away did not shatter the hopes of the brave men. Nearly all the passengers including the crew had left the train for breakfast and thus it was absolutely unprotected.

Andrews directed Knight to uncouple the train back of the box car and 16 men climbed into the last car and with his coolness and deliberation as if he was the regular conductor he, with Knight, Wilson and Brown, climbed on the engine and opened the throttle.

One thing however was forgotten; Andrews failed to cut the bell cord and when it snapped, the gong in the engine rang out loud and clear.



“GENERAL.”

The whole movement was so deliberate that even the sentinels of the camp detected nothing unusual.

At the sharp crack of the gong when the cord parted, the conductor heard it from the station dining-room and rushing out gave the alarm and when the first musket shot rang out from the sentinels, the engine with the three cars were out of sight around the curve.

Andrews had posted himself as to the schedule and meeting points and Knight and Brown were in possession of a fair work-

ing schedule of the road ahead and only had to keep "on time" to Kingston, where they expected to meet the first opposing-train, then another "meet" at Adairsville, two trains this time would give them an open run to Chattanooga with ample time to destroy bridges, track and wires from Kingston north.

There was no telegraph station at Big Shanty and Andrews knew it and before a message could be sent to Chattanooga the wires would be cut.

All were in fine spirits, at Morris station 2½ miles away they found some section men at work. Here they obtained some track tools to use in tearing up the track and also a quantity of wire. At Acworth and Allatoona they stopped and cut the wires and obstructed the track, the rails thus taken up were carried away with them so that the track could not be easily and quickly repaired.

At Etowah 17 miles north of Big Shanty a spur track led to the Cooper Iron Works, here was a switch engine the Yonah standing there with steam up. It was suggested that this engine be disabled and the big wooden bridge over the Etowah river be burned but Andrews thought this was unnecessary as it might cause alarm. At Cass, it was necessary to stop for wood. The agent William Russell asked for an explanation and why the extra train was running on the schedule of the regular passenger train and Andrews in his coolness remarked that he was sent by Gen. Beauregard for ammunition and Russell had no reason to doubt his word, he asked for a time card and which was readily given him, so all went well till Kingston was reached.

Andrews began to realize the great mistake by a days postponement. Calmly informing the agent there that he was an officer rushing powder through to Beauregard at Cornith, he took a siding to wait for the expected freight. As the wires had been cut the agent had no reason to doubt his story but asked Andrews how he expected to get to Huntsville "now that old Mitchell had taken it." Andrews coolly replied he did not believe such a yarn, but his heart must have fluttered at the thought of the danger to his own enterprise.

Instead of one train, he was held over an hour for three, still unsuspected, he pulled out and a few miles beyond stopped to tear up some rails. Scarcely had he begun when he heard a whistle a short distance in the rear.

Let us return to Big Shanty and see what was taking place. When the gong sounded by the parting of the cord it attracted the attention of the conductor William A. Fuller and he rushed out and started in pursuit on foot followed by Mr. Anthony Murphy, Master Mechanic and Jeff Cain, the Engineer. They did not know who captured the engine and did not imagine these men were Federal soldiers in disguise, but thought they were some fugitive southern soldiers or deserters trying to escape.

Capt. Fuller ran at top speed for nearly 2 $\frac{1}{2}$ miles to Moon's Station where he met Jack Bend the section foreman and his gang of men, they informed him that the "General" had passed with about 24 or 25 men and they had taken some tools and cut the telegraph wires. This convinced the men they were Union soldiers. They secured a hand car and set off in hot pursuit and soon came to the engine "Yonah." This they secured and with a few Confederate soldiers started on and reached Kingston a few minutes after Andrews and the "General" had left.

Here they found several freight trains standing on the main line which had been run past the station to allow Andrews to get out with his train of "powder for Beauregard". Fuller and his men went ahead and came across the train just in from the Rome R. R. and securing this engine the "Shorter" started in hot pursuit, Capt. Fuller standing on the pilot to watch out for obstacles. It was this whistle that Andrews heard.

At Adairsville, Andrews and his men passed the waiting freight but the expected passenger train that he was to meet had not arrived. The conductor cautioned Andrews to proceed carefully to avoid running into the passenger train. The freight proceeded south until met by Fuller who ordered him to back his train to Adairsville when the engine was uncoupled and with this engine the "Texas", running backwards Capt. Fuller started again.

The General with the three box cars pitching and swaying with the men inside made fast time over the uneven track. The men knocked a hole in the floor of the third car and by throwing ties on the track, impeded the pursuers who stopped frequently to clear the track. The passenger train was expected at every turn but risks had to be taken.

At Calhoun the train was sighted and Andrews saw the conductor wave his hand to start, but seeing an unscheduled train coming, waited. Andrews opened the switch ran around the

astonished and frightened crew and continued his wild run. But Fuller was so close behind it gave him no time to burn bridges or to remove the rails.

The race was on, Andrews dropped the rear car hoping to ditch the pursuer; this failed. Another car was dropped in the center of a trestle. This failed also; Fuller's engine stopped long enough to couple on to the cars and pushed them on. Andrews ordered his men to fire the remaining car, and after they had climbed on the engine left it on the Chicamauga bridge, a covered wooden structure. But it was raining and before the fire was fairly under way, Fuller had shoved it onto a siding.

The engineer of the "General" stood with the throttle wide open and the engine shook and leaped from side to side as uneven places in the track were passed, the men hanging on like grim death. A constant stream of fire ran from the drivers as mile after mile was covered. They sped by houses, stations and fields almost like a meteor, while bystanders barely got a glimpse of them as they passed.

The wood and water was fast disappearing and the speed began to slacken but reeled as on and on they went. It became apparent that soon the great machine would be helpless. The brasses in the journals were melted by the heat and the lack of oil and every joint shook. The race was almost run.

Three miles from Ringgold the faithful "General" was abandoned and the crew, after nearly twelve hours of incessant labor, now proven fruitless, during which time they had not eaten a bite, scattered in a last attempt to reach their own lines.

But the pursuit did not cease, and eventually all were captured and placed in the Negro jail in Chattanooga. Porter and Hawkins were found at Big Shanty a few days later and upon being questioned, their identity was established.

The prisoners were chained by the neck in pairs, handcuffs and leg irons added, and then manacled, confined for nearly a month in the vile, vermin infested underground dungeon of the Negro jail in charge of one Swim, a jailer, who proved utterly devoid of all feeling. Parrott, who was barely 18, on being taken was stripped naked and whipped almost to death in an effort to get him to talk. Then food was of the poorest, both in quantity and quality and this in spite of the fact that they had concluded to tell and did say they were Federal soldiers. But

they had been caught in citizens clothes and under command of Andrews, whom several officers had recognized as having been several times inside the Southern lines.

Thus they lived from day to day. Andrews had been taken out for trial and each night returned.

A break for liberty had been decided on after some rude keys had been fashioned out of some bone from their scanty rations by which they could unlock their fetters but before this was accomplished, twelve of their number were sent to Knoxville for trial. A few days later Andrews received his death sentence, he was to be executed on June 7, just one week to prepare for death. That night he was placed in the lower dungeon, and the noble 9 in the room above began to work. To save their leader they bent all their energies. By hard work with the aid of a saw made from a case knife, managed to cut a hole in the floor and got their leader and removed brick enough in the gable end of the jail to get out by an improvised ladder. Andrews and Wollam escaped under a heavy fire but were captured and returned to prison. Wollam was captured three weeks later and sent to Atlanta where the others had meantime been removed.

At dusk on June 7th 1862 near the end of Peach Tree Road after bidding his comrades an affecting farewell Andrews was executed. His tragic death at the age of thirty-two left a waiting heart in Kentucky to die of grief a year later. His wedding day had been set for a day in the same month in which he died.

The boys who had been taken to Knoxville were being tried and were then sent to Atlanta where a week later they rejoined their friends in jail.

On Wednesday June 18th, a beautiful day amid sunshine and flowers an officer approached and from a paper read the names of seven men, Samuel Robertson, Samuel Slavins, William Campbell, John Scott, Marion Ross, George D. Wilson, Philip G. Shadrack. They were informed that they were to be executed immediately. "Not one precious hour" were they allowed to prepare for the other world. It was hard and they stood crushed under the thoughts of their loved ones. But farewell words were spoken, verbal messages left with the living and final parting came.

The words of Marion Ross are not forgotten. With voice

unfaltering he said: "Boys, if any of you ever get back, tell them I died for my country. Tell them I died like a man, and did not regret it". On the scaffold George Wilson asked to make a talk, he had a natural gift of speech, and closed by assuring his hearers that the old flag would again wave over a united people, yes, over the spot where they now stood.

They died as brave men do. The seven were buried without coffins in one grave but after the war the United States Government moved them in the beautiful National Cemetery in Chattanooga. In 1887 the body of Andrews was placed there, and in a semi-circle they rest peacefully today, unseparated even in death. The other 14 remained in prison through the hot summer, eating the scant vile food. Various plans of escape had been discussed and dismissed. On October 15th they overheard instructions given the jailer to keep a close watch on those engine thieves, as orders had been received from Richmond to have them all court-martialed and hung". Another escape was then resolved and their plans laid for the daring attempt for the next night. They determined that they should travel in pairs and to this end traveling companions had been chosen. When the time came, under cover of darkness they overpowered their guards and ran out. Extra guards came on the double quick and soon bullets were flying thick and fast six of them failed to dodge the new guards and were returned, these were Pittinger, Raddick, Mason, Bensinger, Buffum and Parrott. After a check of the roster it was found that eight of the number had escaped, these were, Hawkins, Dorsey, Wollam, Knight, Brown, Wood, Porter and Wilson.

Unbelievable hardships were suffered by these brave boys, chased by men on foot and on horseback, harassed by dogs, with no time to seek food or shelter, the first few days were fraught with much suffering. Strange it may seem, not one was hit in all the shooting that took place.

They finally returned to their own lines where a warm reception was given them mere skeletons from their awful experience. The other six who were returned after their daring escape were sent to Libby prison in Richmond and regularly exchanged at City Point.

On a beautiful eastern slope in the National Cemetery at Chattanooga by the side of the driveway and near a weeping

willow, a handsome monument was erected by the state of Ohio in 1891 with appropriate ceremonies. Arranged in a semi-circle rests the seven men with their leader who were executed in Atlanta nearly sixty years ago.

On the top of the monument stands the "General" in bronze miniature, while on the sides are chiseled the names of the twenty-two men. It is the only reward in the power of a great commonwealth in return for the sacrifice of its sons. The writer has been fortunate to visit Chattanooga and in the train shed of the station of the Western & Atlantic R. R. has seen the old "General", the pride of the railroad company standing there in all its beauty just as it was when it made that wonderful run on April 12, 1862.

At the other end of the line in Grant park, Atlanta stands the old "Texas" uncared for, rusty and forgotten, subject to the elements of the weather with a frail wooden moss covered roof over it. What a pity this old engine cannot be restored to the beauty and pride of its former self as it was when it too made that historic run on that Saturday morning of April 12th. It is truly sad to look upon it as your mind wanders back to those dark days of sixty years ago. And as you stand before that monument in the National Cemetery and see the eight mounds your patriotic heart will beat in pity for those brave men who suffered and sacrificed their all in their efforts to bring out one country where there is no north or no south.

The Maine Central Railroad and Its Leased Lines

By CHAS S. GIVEN.

The Maine Central Railroad came into existence as a result of the consolidation of the Androscoggin & Kennebec and Penobscot and Kennebec Railroads on Oct., 28, 1862.

The A. & K. was incorporated March 28, 1845 to build a railroad from some point on the Atlantic & St Lawrence Ry. through Lewiston, to some point on the Kennebec River, between Waterville and the south line of Hallowell. The line was located and construction begun on three divisions in July 1847.

The road was opened between Danville Jct and Lewiston Dec. 4, 1848, and was first operated by the Atlantic & St. Lawrence Ry. It was opened to Winthrop, July 4, 1849, to Readfield, Oct. 15th and to Waterville on Dec. 3rd, at which time there was a grand celebration over the completion of the road.

The Penobscot & Kennebec R. R. was incorporated April 7, 1845 to construct a railroad from some point between the south line of the town of Gardiner and the north line of Waterville, and thence to the City of Bangor. The above roads were 5' 6" gauge.

Quite a contest arose as to which gauge should be used 5' 6" or the so called "narrow gauge" of 4' 8½", and was continued for that and other causes for several years known as the "War of the gauges".

Up to the time of the annual meeting in July 1852, nothing had been done regarding the construction of the road, but at the annual meeting in 1853, the president announced that the whole road had been put under construction, and it was open for business in 1855.

For several years previous to the consolidation, the A. & K. operated the P. & K. under an agreement by which the A. & K. received four sevenths of the net earnings of the combined roads, and the P. & K. three sevenths.

At the time of the consolidation, the A. & K. had nine locomotives viz; No. 1 "Androscoggin" 2 "Ticonic", 3 "T. Butelle", 4 "Franklin" later "J. Morrill", 5 "Penobscot", 6 "Bangor", 7 "E. Noyes", 8 "Lewiston", 9 "C. M. Morse". all inside connected wood-burners.

The P. & K. had four locomotives, vis; No. 1, "G. W. Pickering," later "Gen. Sheridan", 2 "Gold Hunter", 3 "Katahdin", 4 "Kenduskeag". They were renumbered 11 to 14 inclusive on the Maine Central leaving the No. 10, vacant.

In 1868 the Maine Central built its first locomotive in its own shops, No. 10, "R. B. Dunn" and the same year purchased a locomotive from the Portland Co. the No. 15, "A. D. Lockwood", both outside connected and much heavier than the earlier locomotives.

At the same time the A. & K. was under consideration the Kennebec & Portland R. R. was being built. It was incorporated to construct a line between Portland and Augusta, with branch to Bath, built standard guage.



THE FIRST LOCOMOTIVE IN MAINE.

Of the survey it was stated; there are few railroads in New England whose grades and curves are of such an exceptional a character. With the exceptions of a few curves, near stations where trains would run slowly, there was nothing to prevent trains running 30 or 35 miles an hour".

The estimated cost per mile of road was \$24,000 but this proved too low. It was not expected trains could run more than 300 days per year, on account of deep snow.

Iron rails cost \$80. per ton, and iron chairs 3 cts per lb.

The rolling stock supposed to be needed to handle the traffic on the 70 odd miles was; Five locomotives at \$6,000 each; four passenger cars at \$1,800 each; two at \$1,900 each; nine box cars at \$500. each; forty flat cars at \$175. each, and 12 hand cars at a cost of \$75.

The first section of the K. & P. R. R. was built between Yarmouth Jet and Bath, connecting with the Atlantic & St Lawrence Ry. (Grand Trunk) at Yarmouth. It was opened on July 4th, 1849. It was completed between Yarmouth and Westbrook Jet in 1850, and track rights were obtained over the York & Comberland, (Portland & Rochester) to Portland. It was extended from the Y. & C., 'round the west side of the city to a connection with the P S & P on Commercial street shortly afterwards.

It was open to Richmond in 1851, and completed to Augusta in 1853. Built standard gauge. In the late 50's the line from Westbrook Jet was built through Woodfords to a connection near the Portland Street bridge, thus making a direct line to Commercial St.

The Somersct & Kennebec Railroad Co. was incorporated Aug. 10, 1848, with authority to construct a railroad in Somerset County at or near Carratunk Falls thence down the Kennebec Valley through the towns of N. Anson, Norridgewock, Skowhegan, Kendalls Mills, to the town of Waterville, with the right to connect with the Androscoggin & Kennebec at Waterville or the Penobscot & Kennebec in Fairfield, and to extend the road to a connection with the Kennebec & Portland at Augusta.

The executive committee made an agreement with the K. & P. to take a lease of the S. & K. for 20 years, at a rental of 6% on the cost of the road, and this agreement was confirmed by the stockholders, at the time of the organization of the Company.

The road was opened between Augusta and Waterville in 1855, and to Skowhegan in 1857, connecting with the Penobscot & Kennebec at Kendalls Mills (Fairfield), and through trains were run by the K. & P. between Skowhegan and Portland.

The S. & K. owned but one locomotive, No. 1. "Atlantic" which became No. 13 "J. S. Cushing" on the K. & P.

In 1864 the K. & P. was reorganized under the title of Portland & Kennebec Railroad Co. and a new lease taken of the S. & K. for 99 years.

The Androscoggin & Kennebec considered the Kennebec &

Portland a rival road, and on account of the difference in gauge, the K. & P. was unable to get its share of the Bangor traffic. Then too the K. & P. thought the Boston roads favored the A. & K.

In 1857 an act was past by the legislature, attempting to force better connections between the roads at Kendalls Mills, requiring the train that arrived first to wait 20 minutes for the train of the other road, but after a short time the act was declared unconstitutional. After the consolidation of the A. & K. with the Penobscot & Kennebec in 1862, the K. & P. fared still worse, and in 1870 was consolidated with its leased line the S & K, with the Maine Central. The M. C. was narrowed to standard gauge, and business was increased.

In 1868 the Newport and Dexter R. R. just completed was leased, and in 1871, the Belfast and Moosehead Lake, R. R. was completed and leased for a term of 50 years. This lease has just recently expired, (1921) and not being able to arrange satisfactory terms for a new lease with the stockholders, the Maine Central continued to operate it under a temporary agreement.

At the time of the consolidation the Portland & Kennebec had 20 locomotives viz:

M. C. P.& K.			M. C. P.& K.		
No.	No.	Name	No.	No.	Name
22.	1.	Bath.	34.	11.	J. D. Lang.
23.	2.	Brunswick.	35.	12.	Topsham.
24.	3.	Maine	29.	13.	J. S. Cushing.
25.	4.	Patten.	31.	14.	Wm. D. Sewall.
27.	5.	Augusta.	32.	15.	Kennebec.
26.	6.	Richmond.	16.	16.	R. D. Rice.
28.	7.	Reuel Williams	17.	17.	D. Alden.
30.	8.	Gardiner.	18.	18.	Farmingdale.
33.	9.	Hallowell.	19.	19.	G. F. Shepley.
21.	10.	Portland.	20.	20.	H. N. Jose.

The No. 18 was destroyed in 1870, and the No's 1. and 6 were exchanged with the Bangor Oldtown & Milford for their No. 3 "Aroostook" which was renumbered 18 and named "Farmingdale".

The No's 10 and 15 were sold and the following new engines built by the Portland Co. No's 1, 5, 6, 10, and 15 with the same

names as the old engines of those numbers, also the following new engines were built between 1870 and 1872. No. 36 "Union" 37 "Gov. Morrill" 38 "Gov. Coburn" 39 "Waterville," 40 "Skowhegan" and 41. "Dexter".

In the early 50's the Androscoggin R. R. was incorporated to build a road between Farmington and some point on the A. & K. R. R. in the town of Leeds. It was completed to Farmington in June 1859. Built broad gauge to exchange cars with the A. & K.

There was more or less friction between the two roads and in 1861, the line was built between Brunswick and Leeds Jct, with branch to Lewiston. Built standard guage, and after its completion the upper end was also changed to standard guage.

Disputes arose between the A. R. R. and the P. & K. and failing to purchase the Bath branch the Androscoggin R. R. between Brunswick and Leeds Jct was leased to the Maine Central July 1st 1871.

Meantime the A. R. R. had lost title to that part of the road between Leeds Jct and Farmington in 1865 by foreclosure of a mortgage and was known as the Leeds and Farmington R. R. but operated by the A. R. R. This part was also leased to the M C R. R. on Aug 25th 1873.

When leased it had the following locomotives, viz;

M. C. A. R. R. Name			M. C. A. R. R. Name		
No.	No.		No.	No.	
42.	1.	Leeds.	46.	5.	Farmington.
43.	2.	Livermore.	47.	6.	Bates.
44.	3.	Oliver Moses.	49.	7.	David Patten.
45.	4.	Lyman Nichols.	48.	8.	Lewiston.

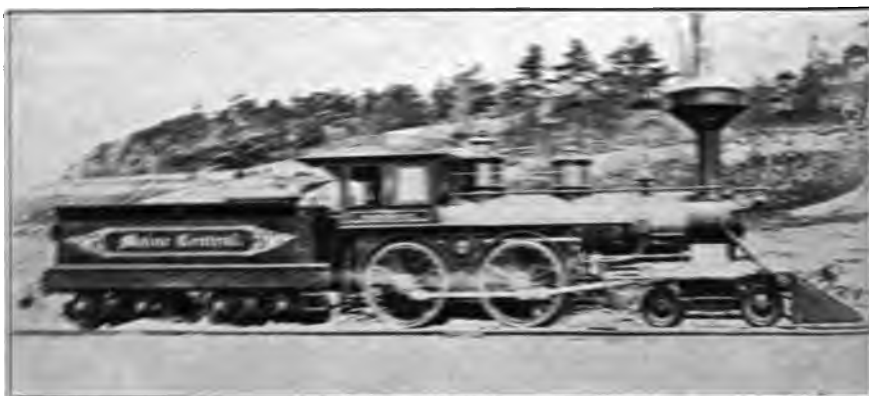
Between 1872 and 1877, the following locomotives were purchased by the M. C. R. R. No. 50. "Newport", 51. "Belfast", 52. "Fairfield", 53. "Winthrop", 54. "Atlas" 55. "John B. Brown" 56. "Geo. L. Ward," 57 "Gen. Knox" 58. "Lewis Pierce", 59. " J. H. Drummond", 60. "Noah Woods", 61. "L. Strickland", 62. "Philander Coburn" 63. "Wm. G. Davis", 64. "Arthur Sewall", which was the last engine to be named on the M C R. R.

In 1833 the first railroad in Maine Bangor and Piscataquis later Bangor Oldtown & Milford) was chartered, to extend from Bangor to Milford.

It was opened in Nov. 1866 and continued in operation until Dec. 1868, when it was leased to the European & North American R.R. then being constructed between Bangor and Vancouver, and parts of its line taken in and abandoned.

It had the following locomotives: "Pemosee", second engine, name unknown, "The Boston", "The Veraz", "The Old Elliot", "The Boston", part of which were not numbered, and as the road was standard gauge while the E. & N. A. was broad gauge its locomotives were not used by the E. & N. A.

The E. & N. A. was begun in 1866, and completed in 1871. It was changed to standard gauge in September 1872, and leased to the Maine Central on April 1, 1882. It had 22 locomotives only



“PENOBSCOT.”

a few of which were listed as follows. No. 1 “Orono”, 2 “Winn”, 3 “M. H. Algell”, 4 “Oldtown”, 5 “Dirigo”, 6. “Bangor”. The No. 5. was formerly the “Milford” of the eastern Maine R. R. which was operated for a time by the E. & N. A. Four of the above engines were not used by the M. C. R. R. They were renumbered from 71. to 87. inclusive.

The Eastern Maine R. R. was originally built broad gauge. In 1861 it was narrowed to 3 foot gauge and two locomotives purchased. When leased to the Maine Central in 1884, these were sold and the road rebuilt to standard gauge.

The Mt. Desert Branch was built between Brewer Jet and Mt. Desert Ferry in 1884.

The Portland & Ogdensburg was begun in 1871 but was not completed to Faybans until August 1875. In 1889 it was extended from Faybans to Lunenburg Vt. and leased to the Maine Central Aug. 20 1888. It had 16 locomotives as follows; No. 1 "Presumpscot" 2. "Saco" 3. "Sebago" 4. "Ossipee" 5. "Fryeburg", 6. "Pequawket", 7. "Carrigain" 8. "Crawford" 9. "Frankenstein" 10. "Resolution" 11. "Webster", 12. "Kearsarge", 13. "Chocorua", 14. "Avalon", 15. "Willey", 16. "Willard", which were renumbered from 101 to 116 on the M. C. R. R.

The upper Coos and Hereford Railroads were completed in 1887, from N. Stratford N. H. to Lime Ridge, P. Q. Canada, and leased to the Maine Central in May 1890. The same year an extension was built from N. Stratford to a point on the Mountain Division called Quebec Jct., At time of lease these roads had 5 locomotives as follows No. 1. "Stratford", 2 "Stewartstown", 3. "Colebrook", 4. "Cookshire", 5. "Sawyerville" which were renumbered from 125 to 129.

The Knox & Lincoln R. R. was constructed between Woolwich and Rockland between 1869 and Nov. 1871. In 1890 it was bought by the Penobscot Short Line Co., retaining its original name and was leased to the Maine Central in Oct. 1891. It had 7 locomotives as follows; No. 1. "Francis Cobb." 2. "Edwin Flye", 3. "Henry Ingallis", 4. "Edward Sewall", 5. "Thomas-ton", 6. "Gen. Knox", 7. "John T. Berry".

The Oxford Central, later the Rumford Falls & Buckfield R. R. was built in the late '50's or early '60's. It was first operated by the Grand Trunk. Later a locomotive was purchased from the G. T. and operated independently. It extended from Mechanics Falls to Buckfield, was later extended on the notherly end to Rumford, and from Mechanics Falls to a junction with the Maine Central just east of Danville Jct. and leased to the M. C. about 1907. It had been reorganized under the title of Portland & Rumford Falls Ry.

Its named locomotives were No. 1. "I. Washburn Jr", 2. "S. J. Andrews", 3. "Buckfield". At time of lease it had 16 locomotives.

The Rumford Falls & Rangely Lakes R. R. extending from Rumford to Oquossock was also leased in 1907, and has been further extended to Kennebago, a total of 46 miles.

Over the eastern part of the State very little roads built in the 1850's for mail carrying purposes. One the Calais & Barring ext. road. Then the other two the Calais R. R. was 17 miles in length and the other between Calais & Bangor 21. They were consolidated about 1860 as the St. John & Bangor R. R. and were taken over by the Washington County R. R. then building in 1866.

These roads had the following locomotives: "G. M. Porter", "Mare", "Little Rock", "Bangor", "Tale", "Barring", "Princeton", "St. John", "Eagle" and "Jas M. Marchie".

The Washington County R. R. extending from Calais to Washington Jet, with branches to Princeton and Eastport, was absorbed by the Maine Central in 1911. It had 11 locomotives.

The Somerset R. R. was built about 1870 between West Waterville (now Oakland) and Norridgewock and was extended to N. Anson and later to Madison. About 1899 it was further extended to Kineo and in 1911 was taken over by the Maine Central. Its named locomotives were No. 1 "Carratunk", 2 "Old Point", 3 "Norridgewock", 4 "Carrabassett", 5 "Bombazine", 6 "Moxie". It had 13 engines at time of lease.

The Sebecbrook & Moosehead Lake R. R. Pittsfield to Hartland, was built about 1888; later extended to Harmony and leased by the Maine Central in 1911. It had one locomotive.

The above lines make up the Maine Central R. R. as it is today. It owns two narrow gauge roads as follows:

The Sandy River R. R. was opened in 1879; it extended from Farmington to Phillips. About ten years later the Phillips & Rangeley R. R. was built between Phillips and Rangeley Lake.

In 1897 the Franklin & Magentic was built between Strong and Bigelow, and these three narrow gauge roads were consolidated in 1908 under the title of Sandy River & Rangeley Lakes R. R.

The stock is now owned by the Maine Central R. R. There are 14 locomotives nearly all modern, two of which are of the *Prairie* type. About 300 freight and 25 Passenger, Baggage, and *Unboose* cars, also a Parlor car as up to date in its fixtures as its sister cars of standard gauge.

The Bridgeton & Saco River R. R. is also owned by the M. C. R. R. with its 21 miles of line between Bridgeton Jet and Harrison.

This little road has 4 locomotives. These small roads are valuable feeders for the standard lines.

Of my boyhood and my young manhood many hours were spent at the Boston end of the Boston & Providence Railroad. Instead of playing ball and other things which my boy friends did I spent a lot of time at the Roxbury Shops of that road. This was because of a fascination which I had then and which has been greater ever since. Yesterday I had lunch with a man of my own age who did about the same thing at the Providence end of the same little railroad. I knew the engines and the engineers and the shopmen there as he did at the other terminal of the line. In talking over old times yesterday he made a remark which may be of value to the members of the Railway and Locomotive Historical Society. After his observations he suggested that which for many years has been in my mind, I will give it for what it is worth.

He commented upon the little old engines of 45 years ago, the engines which ran between Boston & Providence, on passenger trains in an hour, the same time that is now occupied over that division. Of course the trains were light. They had five, six or perhaps seven cars, and the cars themselves were light. The point he made and the matter of importance from the standpoint of history which he emphasized was the very great care which was exercised in those days to make the engines light and to get as much power as possible out of every pound of metal used. The side rods and the main rods of those days could be handled and easily by one man. The crank pins would make watch charms now. Those little engines did wonderful work. Probably the records which would show tonnage and give a real line on performance were never taken in those days. It is impossible to give them now, but I believe that those little engines did more work per pound of metal than the big engines of today.

My friend and I both watched the increased weight of trains as business increased and yesterday we agreed that we thought we noticed when side rods and main rods began to become heavier. We thought we both noticed at that time that weights were increased not as a factor of safety, but as a factor of ignorance and then when the Old Colony took over the little road we knew so well we found bigger engines used. Mr. John Lauder

kept the weights down as much as he could, but after Lauder's day the thing went wild.

If someone had the time to look up old records, establish the weight of little old engines I am speaking of and establish the work which those engines did, following this by a comparison of the weight of trains and weight of engines with the performance of today I am sure that history would reveal that the men on a whole were building better than the men of today with respect to power per pound of weight.

Power produced by a pound of coal is another matter. This is something our friends of old never knew about, never thought about and never cared about, but McQueen, Aretas Blood and the men who ran the old Hickley Locomotive Works knew more about cared more about and took more pains with the weight of running gear parts of the engines they built than any but a very few people in this Country have ever taken since.

With the materials we now have available and with the engineers who figure stresses we should certainly be farther along than we are in the use of light parts of the running gear of our engines. Let us learn this from history and let us get busy in using the information.

G. M. BASFORD.

In reference to the Vauclain compounds of the Chicago & North Western Railway, mentioned on page 20 of the Bulletin No. Two, there is one more of these compounds, which although not built as a compound and not built by Baldwin, existed for a short time as a compound. Definite information on this was located since the publication of the Bulletin above mentioned.

Engine 646, built at Schenectady in December, 1891, as a simple engine, was converted into a Baldwin, or Vauclain, compound, in 1897, presumably at Chicago Shops. Her existence as a compound, however, was very short, for in 1901 she was changed back to a simple engine. This locomotive is a class S—4, and of the Ten-Wheel type.

R. W. CARLSON.

BULLETIN No. 4



EXCHANGE
JUN 8 1932



THE RAILWAY AND LOCOMOTIVE
HISTORICAL SOCIETY

THE RAILWAY
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Boston Old Depots

By WARREN JACOBS.

To the modern generation, familiar with the big North and South stations in Boston, it will doubtless be a surprise to them to learn that up to the year 1894, Boston had eight railroad stations four on the North side of the city and four on the South side, and all or nearly all were not only fine specimens of architecture, but were exceedingly well placed to the business, shopping, theatre and hotel districts of the city.

The four stations on the North side of Boston were the Boston and Maine in Hay-market square, in a commanding position at the head of Washington Street and on the site of the present Boston Relief Hospital, and the Fitchburg, Eastern and Boston and Lowell depots on causeway St.

The stations on the south side of the city were the Old Colony and Boston and Albany on Kneeland St. the Boston



THE OLD HAYMARKET SQUARE DEPOT

and Providence in Park Square, and the New York and New England at the foot of Summer St. on the exact site occupied to-day by the South Station.

The oldest of all these stations was the Boston and Maine in Haymarket Square which was opened July, 1845. The origin

of the big Boston & Maine system of to-day was a small road from Andover to Wilmington known as the Wilmington and Andover R. R. and opened for traffic August 8, 1836, the tracks of the Boston and Lowell R. R. being used between Wilmington and Boston. This little road had a number of changes and became the Boston and Maine on January 1, 1842. Owing to friction with the Boston & Lowell R. R. over the use of the latter's tracks, in March 1844 the Boston and Maine built its own line into Haymarket Square Boston, through the towns of Reading, Malden, Somerville and Charleston. The Haymarket Square Station had a most imposing front and a large clock facing Washington St. Inside were two tracks, one for outward and the other for inward trains. The station was remodeled as to its interior arrangements several times but its outline was practically the same in 1894 when it was abandoned, as the day it was built. The Boston and Maine R. R. crossed Causeway St. at grade, and this grade crossing was in existence up to the time of the opening of the North Station. The crossing was well protected by heavy lattice work gates which were opened and shut by the crossing tender and worked about the same as a heavy door to a large building, not the familiar "lift" type of the present time.

The Fitchburg Depot on Causeway Street is still standing and is used by the Boston and Maine R. R. today as an office building. This station was opened for traffic August 9 1848, although construction was commenced in 1847. The following is the notice of the opening of the Fitchburg depot taken from the "Boston Advertiser" of that date.

FITCHBURG RAILROAD.

On and after Wednesday August 9th 1848, the usual Passenger Train will leave the New Station in Boston. Charlestown passengers who desire it will be taken and left at the crossing at Prison Point Bridge.

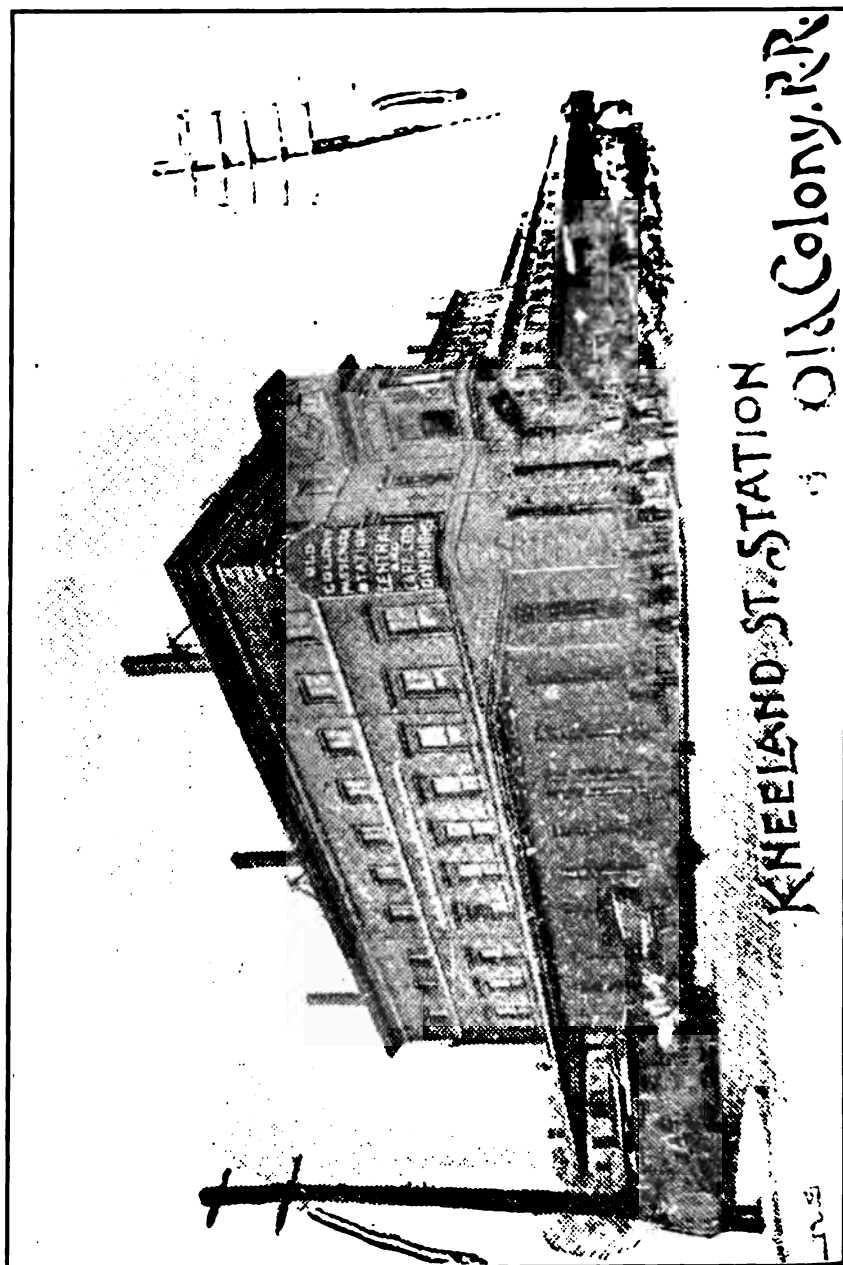
S. M. FELTON, Supt.

The Fitchburg station was built entirely of Fitchburg granite and was at that time the largest and most imposing building in Boston. Even today, its massive construction which will last for all time, appeals to the beholder. The building was so large that at first the upper hall was not used for railroad purposes, but was leased for various social affairs, and in this great hall, the largest in Boston at that time, Jennie Lind, the world famous singer, gave her concerts in October 1850 before the largest audience ever gathered under one

roof in New England. The Fitchburg depot also had two tracks, one for outward and one for inward train movements, and in later years there was a third track outside for trains from the Watertown Branch. This station was also abandoned for Passenger trains with the opening of the North Station.

The Eastern Railroad depot stood on Causeway Street facing Friend Street. The first station of the Eastern R. R. Causeway Street was opened April 10, 1854 and burned June 21, 1862. Another station was then built which lasted until 1893, when it was torn down to make room for the present North station. The Eastern depot, like the others, had but two tracks but later another was added for the Sangus Branch trains. The Eastern depot had a clock tower facing Friend Street and the sign "Eastern Railroad" on the front. It was not as imposing a structure as either the Haymarket Square or Fitchburg depots. The Eastern R. R. was opened between East Boston and Salem August 27, 1838 connecting by ferry from Boston. It was extended to Newberryport June 17, 1840 and to Portsmouth November 9, 1840. It remained an independent road until 1884 when it was leased to the Boston and Maine R. R. and became the Eastern Division of that road.

The Boston and Lowell depot which now forms a part of the present North Station was opened in December 1873. It also was built on the site of a still older station of the same road. At that time it was the largest and finest station in Boston, if not in the country, and its beautiful massive arched train shed, has only recently been removed. It was built under the administration of General Stark and was known for a number of years as "Starks Folly" on account of its great size. The directors also came in for criticism, not only on account of its size and beauty, but because of its expense. Time has shown, however, that they builded wisely. The Boston and Lowell depot is the only one of Boston's former depots that is in use as a passenger station today. Its upper stories are also used as offices by the Boston and Maine Railroad. The Boston & Lowell was one of the three original roads out of Boston, the other two being the Boston & Providence and the Boston and Worcester, all three being entirely completed in 1835. The first station of the Boston & Lowell was a small building at the corner of Leverett and Brighton Streets Boston. One of the old Station Masters in the Boston & Lowell depot was General Michael T. Donohoe, who was formerly a conductor on the road. He entered the Army in the Civil War with the Third New Hampshire Infantry and was a Brevet Brigadier General at the close of the war. He was connected with the Boston &



KNEELAND STREET STATION. BOSTON. OLD COLONY R. R.

Lowell road for many years. The Boston & Lowell road was leased to the Boston & Maine in 1887. It was first known as the Lowell System of the Boston & Maine, but later became the Southern Division, by which name it is known today.

The Old Colony Depot on Kneeland Street at the corner of South Street was opened May 19th 1847, and the Old Colony R. R. itself was opened for traffic from Boston to Plymouth November 10, 1845. For a short time after the road was opened trains left from a temporary station in South Boston, near the site of the house of Engine Co. 15 on Dorchester Ave. Then arrangements were made for a use of part of the Boston and Worcester depot at Lincoln and Beach Streets Boston, and this station was used up to the time the Old Colony Depot was finished. The Old Colony depot was in use until Jan. 1, 1899, when the South Station was opened. The Fall River Line boat train left from the station from the day it was opened until June 16, 1890 when it was transferred to the Park Square Station. In 1867 the Old Colony Depot was extensively remodeled, the work being done by G. J. F. Bryant, a noted Architect of that time and son of Gridley Bryant who built the Granite Railway—first in America—the clock tower and the large clock facing South Street were added to the Old Colony Depot at that time.

The Boston & Albany R. R. depot on Kneeland St. was opened September 5, 1881. It was considered a very large and beautiful station at that time and replaced an older station at the corner of Albany and Beach Streets which had been in use since Nov. 7, 1836. The Boston & Albany depot had a very famous train caller, Henry Williams, who had a magnificent voice, and many times people would take seats in the waiting room just to hear him call the trains. William Dean Howells the noted author who died a few years ago, once wrote a little sketch called the "Albany Station" in which he told at length about Henry Williams calling the trains and whose voice could be heard all over the waiting room when he called out—"Cars ready for South Framingham, Worcester, Springfield etc. The Boston and Worcester Railroad which later became the Boston and Albany R. R. was the first railroad out of Boston being opened to Newton April 16, 1834. The following account of the opening is taken from the "Boston Advertiser and Patriot" for that day. "About a hundred and twenty ladies and gentlemen made an excursion to Newton yesterday afternoon on the Worcester Rail Road in six cars. On the return passage the nine miles were traveled in twenty eight and a half minutes making an average speed of 19 miles an hour, from the starting

at Newton to Tremont Street. The cars will begin to run regularly from this day (April 16, 1834) making two trips to Newton and back at 10 A. M. and 3¹/₂ P. M. Each trip including the stay at Newton will occupy about an hour and three quarters". The first station of the road in Boston, and therefore the first railroad station in Boston was located on Washington Street at the corner of Indiana Place, now known as Corning Street, the depot running through to Tremont Street. This station was used until the opening of the depot on Beach Street, as will be seen from the following notice in the "Boston Advertiser".

**South Cove Depot
Boston and Worcester Rail Road.**

On and after Monday Nov. 7, 1836 the Passenger Cars will start from the new brick building at the corner of Beach and Lincoln streets at the usual hours viz. 7 A. M. and 3 P. M. and proceed without stopping at the old depot on Washington Street.

J. F. CURTIS, SUPT.

The Boston and Worcester became the Boston and Albany in 1867 by a consideration of the Boston and Worcester and Western roads, the latter extending from Worcester to Albany.



OLD STATION, BOSTON & PROVIDENCE R. R. BOSTON, MASS.

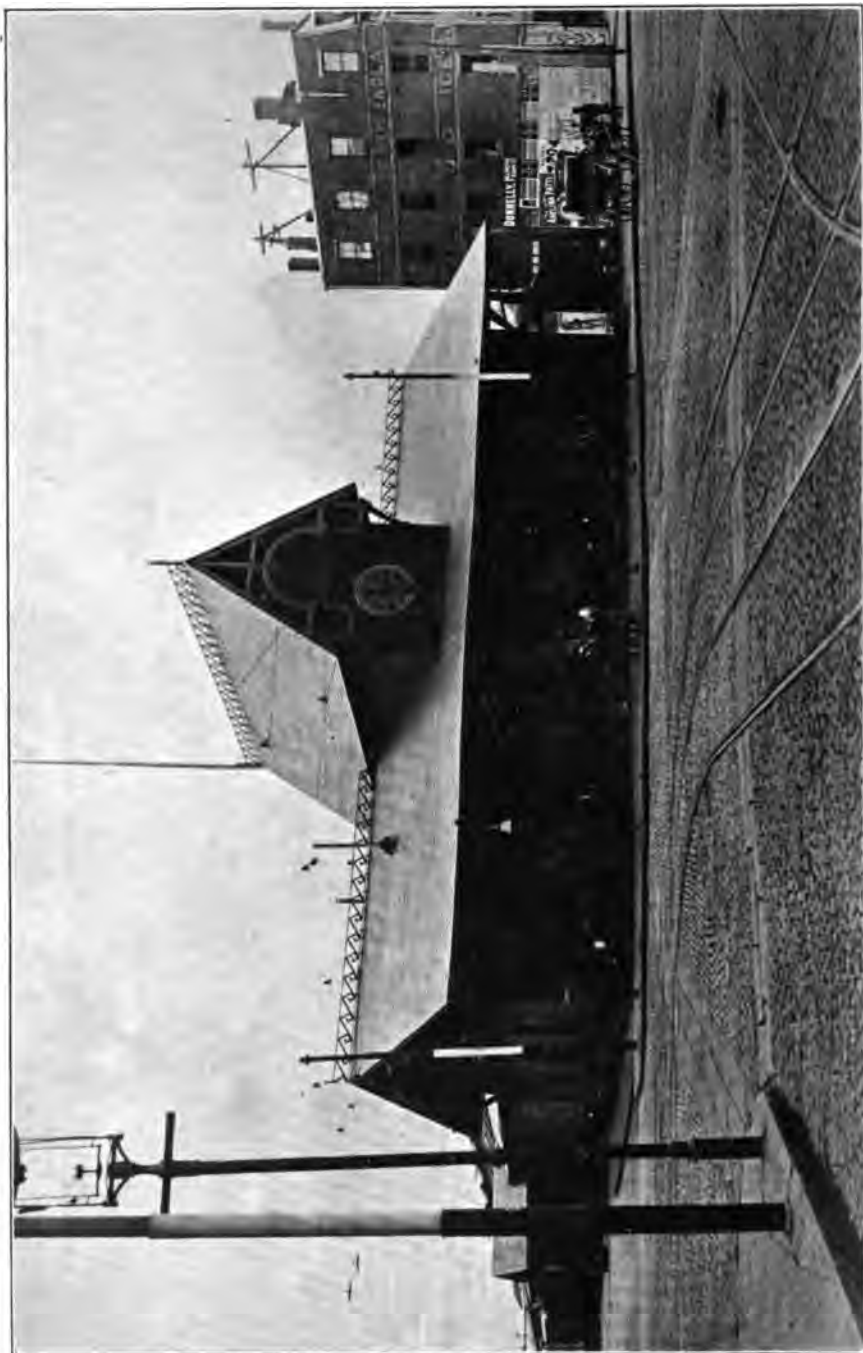
The old Beach Street station was in use until 1881 when the Boston and Albany road opened their new depot on Kneeland Street. This depot was abandoned for passenger trains July 23, 1899 the Boston and Albany trains entering the South Station on that day.

The Boston and Providence R. R. depot in Park Square was opened in 1874 and was at that time the largest and finest station in New England, and with the exception of the Grand



PARK SQUARE STATION. BOSTON & PROVIDENCE R. R. BOSTON.

Central in New York, one of the largest in the United States. Its beautiful great arched train shed, 600 feet long, was considered wonderful, and its high clock tower could be seen for a



N. Y. & N. E. DEPOT AT FOOT OF SUMMER STREET

long distance. The station stood facing the Lincoln Statue in Park Square, and was but a moments walk from the Common and Public Garden. Its waiting room was large and commodious and all the facilities of the station were of the most modern type and remained so up to the last. From the station there left for years, the Shore Line trains, the famous Stonington Line boat trains, and after 1890 the Fall River Line boat train. The first station of the Boston and Providence was on Pleasant Street, but on account of the Columbus Avenue improvements by the city of Boston, the railroad was obliged to change the location of their station to Park Square. The Boston and Providence was opened to Readville June 4, 1834 to Canton Sept. 12, 1834 and to Providence June 11, 1835 between this date and July 28, 1835 passengers were carried by stage around the Canton Viaduct which was not completed until this latter date. The first train to cross the Canton Viaduct left Boston at 4.00 P. M. on July 28, 1835. The Boston and Providence was leased to the Old Colony in April 1888 and the Park Square Station was abandoned by Passenger trains Sept. 10, 1899, and was demolished several years ago. Park Square is now the center of the automobile trade of Boston.

The New York and New England depot foot of Summer Street, on the site of the present South Station, was erected in 1872 to replace the old station of the Boston, Hartford and Erie R. R. burned in the great fire of that year. The New York and New England station was a rather small depot with a clock in the peak of the roof, facing Summer and Federal Streets. It had two tracks under the train shed and in later years two more were added to accomodate the suburban trains, as the New York and New England had a large suburban travel between Boston and Dorchester, Readville and Norwood Central. From this station left the "Federal Express" first through train to Washington via Harlem River, which made its first trip from the New York and New England depot Monday, May 8th 1876, the train leaving Boston at 7.00 P. M. and due in Washington at 12 noon the next day, and there also left from this station the old Norwich Line boat train. The most famous train of all though, of that day was the "White Train" or "Ghost Train" so called because the cars were painted white. They were very handsome with "New York and New England" in fancy gold letters and the gold maltese cross, the trade-mark of the road at each end of the car. This train began running March 16, 1891 and was discontinued October 20, 1895. It stopped only at Willimantic, Middletown, New Haven and Bridgeport and the run of 86 miles between Boston and Willimantic without a stop was considered wonderful at that time. The

train was well advertised by the New York and New England R. R. and was one of the best known and most popular trains between Boston and New York at that time. The New York and New England Railroad had its origin in the Norfolk County Railroad from Dedham to Walpole which was opened on May 1st 1849. The following first time table of this road is taken from the "Norfolk Democrat" published at Dedham.

Norfolk County Railroad.

On and after Tuesday May 1st the cars will leave Walpole for Dedham and Boston as follows: Leave Walpole at 7:10 A. M. Returning will Leave Dedham at 6:10 P. M.

Passengers for Walpole will leave Boston in connection with the Stoughton Train at 5½ P. M. Franklin, Medway, Medfield and Wrentham Stages will run in connection with the above Trains.

Merchandise trains will leave Boston Daily May 1, 1849.

H. W. NELSON, Supt.

This road was extended from Walpole to Blackstone May 16, 1849 connecting with the Providence and Worcester Railroad. The name Norfolk County was changed Dec. 12, 1853 to Boston and New York Central Railroad, and an extension was built from South Dedham Junction, into Boston via Dorchester, previous to this time the trains had left from the Boston and Providence station on Pleasant Street. The extension into Boston was opened January 1st 1855 the time table in the "Boston Courier" of that day reading "Boston and New York Central Railroad from New Station foot of Summer Street." It is interesting to note in this connection that the big South Station, built on this same site was opened January 1st 1899 forty four years later. In 1863 the name Boston and New York Central was changed to Boston, Hartford and Erie Railroad, and became the New York and New England in 1873 and was opened through to Fishkill on the Hudson in January 1882. The New York and New England became the New England Railroad in 1895.

On August 23, 1896 the New England trains were transferred to the Old Colony depot, and the old New England depot at the foot of Summer Street was torn down to make way for the new South Station, July 1, 1899 the New England road was consolidated with the New York, New Haven and Hartford.

With the exception of the Boston and Lowell, Fitchburg and Albany stations, there is nothing left of Bostons' old depots but a memory. The Boston and Lowell still has the old letters

cut in granite on the front "Boston and Lowell R. R. Passenger Station," and the Boston and Albany has been altered into a cold storage warehouse. But these old depots served their purpose well, and there are many men in the service today who have run trains into or worked in the old depots of the Boston and to them the mention of one of the old stations always bring pleasant recollections of the past to mind.

This article was first printed in the Old Colony Memorial, Plymouth, Mass. September 17, 1920. It has been revised and enlarged for the publication in the bulletin of the Railway and Locomotive Historical Society.

Recollections

BY JAMES F. CHADBOURNE.

In attempting to write an article for our Railway & Locomotive Historical Bulletin I am confronted with two conditions: I am aware that I am not qualified to do such a work and also nothing has ever happened to me worth recording but I may be able to tell some things of interest that others have not experienced.

I fell in love with a locomotive when very young and I remember one occasion when I was a boy my father and uncle attended a gathering of some kind in Portland and arranged with me to be at the railroad station to meet them. While waiting for them a locomotive driven by one engineer with whom I was somewhat acquainted stopped at the depot and the engineer said to me "Want to ride a few miles and then you can meet your Father"? I gladly accepted his offer and that evenings ride caused me to want to be an engineer. When a little older I secured a position as fireman on the Lake Shore and Michigan Southern but I did not stay there long as the men did not seem to like Eastern Help.

The desire to railroad continued however and as the Boston & Maine were building the extension of their line from Salmon Falls Bridge to Portland I applied to Wm Smith, the Master Mechanic, for a position but he evidently was not impressed with my looks for he said "I have all the men I want." However a few days later I applied again for a position and saw James Paul, round house foreman, who said "Why yes, you might as well go to work for I have eight good for nothing critters' round here now and you will make nine." Mr. Smith was away the day I was hired but the next day he came in and stepped up to me with an inquiring look on his face and I told him how I happened to be there and he said "Well see that you are good for something." Mr. Paul was a very fine man but he had a very queer way of addressing one. He would say "Oh you miserable dog I want you to go to such a place and do so and so." Many amusing sayings of his now come to my mind. After doing spare work for about a month Mr. Smith assigned me to the number 37 named "Hobart Clark," illustrated herewith, run by engineer John W. Tuller. We alternated with the number 17 "Bay State". One week we made four round trips each day and the next week three trips and one to Wakefield Junction.

The week of the four round trips I had to be at the engine house about five o'clock in the morning to get the Hobart Clark out and make up the train. We left Reading at six o'clock. I carried my breakfast that week but I had my dinner at home. We left Boston on the last trip at eleven thirty in the evening and if we had good luck all the way I could tumble into bed about twelve forty-five. The next week we did not leave until about seven thirty in the morning and so had breakfast at home but carried my dinner. Wednesday and Friday nights I had to make an extra trip for the theatre people and arrived home about one in the morning.



BOSTON & MAINE "HOBART CLARK."

The fireman did all the switching in those days. Today the men only want to work eight hours.

I remember there was a switch in the Reading yard which was too near the track and my engineer had warned me about it but one morning while I was making up the train I leaned out of the cab window too far and the next I knew I was on the ground but I succeeded in grabbing the rail on the end of the car which was attached to the engine, climbed to the platform, over the tender and into the cab. I did not tell Mr.

Tuller what had happened for I was afraid the order would be enforced that compelled two men to be on an engine when in motion. I had considerable experience handling a locomotive because my engineer had a sick wife and he helped her in the morning before he came to work so I had train and engine ready when he arrived.

Later we exchanged the No. 37 for the No. 12 "Lawrence" illustrated herewith, you will notice she is an insider, cylinders between the frames and a crank shaft. She had been completely overhauled and painted and I was very proud of her.



BOSTON & MAINE "LAWRENCE."

Mr. Tuller was a very careful engineer and when he had to wait on a side track in Reading he always had her full of water; she had no water glass, they became very common later. A spare engineer in Reading often substituted when either engineer was away and on one occasion when this man was running for Mr. Tuller he left me to care for the engine until time to return to Boston. When I had her turned around and ready to back on to the side track I tried her top gage, no water, then the next one, no water, then the bottom one, clear steam. I was somewhat frightened but the thought came to me that my fire was carefully covered and the boiler was new also the safety plug was intact, so I knew there must be water

between the lower gauge and the crown sheet. There was a target at Reading; one red ball by day and a red light by night at mast head signified track clear but if at the ground stop. I ran to that target and lowered it to the ground to stop all trains then put the "Lawrence" on the main line; both pumps working and I soon had water showing in the second gauge. Then I put her on the side track and raised the ball to the mast head. When this was done I was surprised to find myself bare headed and I have always thought that my hair stood on end and took my hat off.

Mr. Paul, whom I have alluded to previously was a very religious man and the Bible account of the creation of the earth was good enough for him.



BOSTON & MAINE "SAXON."

I remember about 1874 a man by the name of Tymmes delivered a lecture in Boston; he claimed that the earth was a hollow sphere and that if the North Pole was ever discovered it would be found that ships could sail into this tunnel and a land peopled similar to ours would be found; such an idea was abhorant to Mr. Paul.

The next morning he had another man with me doing some light work on an engine and we introduced the subject of

Tymmes hole; we did not know he, Mr. Paul was near us; but we soon observed he was kicking one of the pillars which held up the roundhouse; we had learned this was a way he had of showing displeasure. We were very much interested in Tymmes hole and had no doubt of its existence, or of the conditions. After we finished the work he said now you may go and put some brake shoes on the No. 25 "Atlantic".

The pit where the locomotive stood was too short for her and a man had to crawl under the tank and lie on his back to do the necessary work. Mr. Paul had said he would bring the brake shoes so I crawled under the tender and waited and waited and wondered where he could be with the shoes. At last my companion looked him up and found him complacently read-



BOSTON & MAINE "SHAWMUT."

ing "The Morning Journal". We went over and asked him where the shoes were and he replied, "Oh, where is Tymmes hole? They have everything there and probably all styles of brake shoes." He surely had the best of us.

I continued firing for Mr. Tuller until the following March when Mr. Wm. Smith assigned me to the No. 50 North Star built by the Manchester Locomotive Works. I have not a photograph of her but show a picture of a mate to her the No. 51 "Saxon." I also had the No. 60 "Pepperell" and later the No. 39 "Shawmut" illustrated herewith and No. 59 "Columbia." Nothing happened to me but good luck which many a railroad man would like to be able to record.

The Mount Washington Railroad

By J. W. MERRILL.

A traveler making a trip through the White Mountains must not miss a chance to ascend Mount Washington by the cog railroad. Sylvester Marsh of Littleton, New Hampshire, conceived the idea of building a railroad up the mountain, and in 1858 he exhibited a model of the line to the state legislature asking for a charter to build up Mountains Washington and



THE "PEPPERSAUCE."

Lafayette. The charter was granted and one of the legislators suggested that Mr. Marsh should also receive permission to build a railroad to the moon. The road was commenced in April 1866; one fourth of a mile was built that year; three quarters of a mile the next year; one mile in 1868 to the top of Jacobs Ladder, and the road was completed in July 1869; the whole cost being \$150,000. A similar road has since been constructed on Mount Rigi in Switzerland. The peculiarity of this mountain railroad is the central cog rail which consists of two pieces of wrought angle-iron 3 inches wide placed upon their edges parallel to each other, and connected by strong iron

pins $1\frac{1}{2}$ inches in diameter and four inches apart from center to center. The teeth of the driving wheels of the engine play into the space between the bolts, and as they revolve the whole engine is made to move, resting upon the outer rails. The appliances for stopping trains are of the most perfect kind. Both friction and atmospheric brakes are employed, and their complete reliability has been proved by the severest tests. The friction brake consists of an iron band encircling each wheel, and tightened at pleasure. There is also the power of reversing the driving wheels; next there are atmospheric brakes upon each side of the cars. Their application is so successful that a platform holding a passenger car may be detached from the engine and lowered by itself, being completely under the control of the brakeman. There are in all, six ways of stopping the train.



Mt. WASHINGTON Ry. #5

The railroad is $2\frac{1}{2}$ miles long, the average grade being 1300 feet to the mile; the maximum grade on Jacobs Ladder is 1980 feet to the mile. The ascent takes $1\frac{1}{2}$ hours, and the engine is supplied with water at each of the four tanks. The decent, however, is accomplished in less time. The time card

calls for two trains, one to the summit in the morning, and a return trip in the afternoon but as many sections are operated as the number of travellers require. The fare is \$4.00 up and \$6.00 for both ways.

The most interesting feature of the road is the locomotives and I am pleased to be able to illustrate the first engine that ever ascended the mountain, the number one, "Peppersauce", named so because it resembled a long necked bottle carried in slings. This arrangement enabled the boiler at all times to remain upright on any section of the grade.

A few years afterwards the road bought a more improved type of locomotive, number 5. As time went on a newer type was adopted, number 3. There were nine engines like the number 3 illustrated and they were all named (except number 9) as follows:—

1. "Peppersauce"
2. "George Stevenson"
3. "Hercules"
4. "Atlas"
5. "Cloud"
6. "Tip Top"
7. "Falcon"
8. "Pilgrim"
9. No name.

The locomotive originally burned wood as fuel but coal is now used although the engines are equipped with sunflower stacks; the exhaust from the cylinders however does not go thru the stack but thru an exhaust pipe on the top of the cab.

A mountain railroad similar to the Mount Washington line was built up Green Mountain on the island of Mt. Desert Maine. It resembled the former road except there was no trestling; the track timbers being bolted to the solid ledge. The idea of constructing the line, it is said, originated with a very stout lady whose superfluous flesh rendered it an impossibility for her to enjoy a splendid view from the summit. A Bangor lawyer named Clergue, was struck with the idea of building a road up the mountain and it was completed about 1883. The same type of locomotive was used as No. 3. The line was not a success and was abandoned a few years later. I have two fine photographs taken from the summit of Green Mountain showing not only the extensive view but also locomotive number one named "Mt. Desert" and number 2, no name. The two cars are still in existence and one is used in Bar Harbor as a little store. The Mount Washington railroad had a bad fire about the time the Mount Desert road ceased operations and

bought the locomotives. They were carried across to the mainland on scows and thence on flat cars to the base of Mount Washington.

It is interesting to note that the Mount Washington railroad has never paid any dividends and up to the time the Boston & Maine took over the property the officers received no salaries for their services. All the revenue has been laid out perfecting the line and for equipment and strange to relate not a passenger has been killed.

When the railroad was opened it was connected with Fabyan seven miles away by a branch of the Boston Concord & Montreal Railroad. A powerful mogul type locomotive the No. 29



MT. WASHINGTON RY. #3

“Mt. Washington illustrated herewith, was purchased from the Manchester Locomotive Works and ran on this branch only. The grade is very steep and a powerful Mogul of the Boston & Maine can only push three light observation cars up to the base.

Surveys were made at one time for a new railroad to the summit, the motive power to be Electricity. The road was to encircle the mountain three times and it was expected this circuitous route would increase the revenue of the road on

account of the more extended view gained by this way of ascent but the road was never built.

It might be of interest to state that Mount Washington is the highest peak east of the Rocky Mountains and north of the Carolinas, and is 6293 feet high because of its elevation the summit forms an arctic island in the temperate zone with the same climate as the middle of Greenland. This peculiarity is shown not only in the temperature but also in the vegetation. On the peak was the old Tip Top house built of stone, later a wooden hotel was erected but was burned some years ago and the Boston Maine have within the last two or three years constructed a very up to date hotel which is a credit to the



B. C. & M. "Mt. WASHINGTON."

road. The original Tip Top house is again in use as a bunk house for trampers at one dollar a night.

Another way to ascend and descend the mountain is by the carriage road. The Glen and Mount Washington Stage Line operate some seven passenger Packard twin six touring cars quite different from the old stage coaches drawn by six and eight horses.

It is said that the first ascent of the mountain was made in June 1642 by Darby Field, an Irishman, accompanied by two Indians; what a different view they must have seen from what the traveler looks upon today.

The Famous Color Trains of America

BY CHAS. E. FISHER.

Outside of the red cars of the Pennsylvania, the orange and maroon cars of the Chesapeake & Ohio and the Chicago, Milwaukee & St. Paul, the yellow and green coaches of the Chicago & North-Western, the passenger of today accepts the modern dark green color as an established fact. It is true that dark green was adopted as a matter of necessity. Due to the elements, the wear, the difficulty in keeping the surface clean, dark green was chosen because it would generally, present the best appearance.

In times past, when passenger equipment, and locomotives too, represented the highest achievement in "the wielder of the brush", gay colors and fancy scroll work adorned the equipment. There was an individuality of colors. In New England, the Old Colony and Boston & Maine Railroads painted their equipment yellow, the Housatonic painted their equipment red, etc. Other roads had their own colors and distinct ones too. In the interiors, the colors were lavish, and it is a fact that a certain train on one of our New England railroads was so beautifully painted outside and so handsomely finished inside, that it was used only during the summer months. In the winter, when this train did not run, the equipment was stored until the following spring, when it was renovated and prepared for the summer service.

But the most interesting of all the early equipment were the "color trains". These were painted a different color that they might be more readily distinguished and also, perhaps more easily advertised.

For years it was the custom of the New York Central & Hudson River Railroad to paint their mail cars white. In the late seventies, a train called "The Fast Mail" was added to the schedule and this train was sometimes called the "Vanderbuilt Mail". These mail cars were perhaps nearer a buff color and "The Fast Mail" appeared in gilt letters thereon. Under the windows appeared the name of some prominent man painted in gold letters, like "James G. Blaine", "Governor Smith", etc. The ends of these cars had a crude sort of vestibule of wooden doors but had no bellows or diaphragm. The cars for this run were supplied by the New York Central and Lake Shore & Michigan Southern Railroads and were lettered according to ownership; the initials appearing on the sides of the cars, but near the ends. Originally, "The Fast Mail" was just what

its name indicated, when Commodore Vanderbuilt wanted the road to become known as the fastest long distance proposition in the world. In the eighties this train was taken off-but later restored. In 1893 this train consisted of four white postal cars, a red baggage car, two Wagner sleepers for Chicago, two parlor cars for the Adirondacks (dropped at Utica) and a red coach dropped at Albany. At this time it was a good train, although the "Exposition Flyer"—New York to Chicago in twenty hours—offered greater speed and luxury, and the "North Shore Limited" offered greater luxury but nothing spectacular in regards to speed. The mail cars of this road were still painted white as late as 1900, when they too, donned the darker shade of color. "The Fast Mail" still appears on the New York Central R. R. schedule but it has been overshadowed by the more important "limited" trains.

In describing the equipment of the above train, I mentioned a "red" coach and "red" baggage car. While the color adopted by the New York Central was white for their mail equipment, red was the standard color of that road and was used for all other passenger equipment. The shade of red used was of a very deep, rich color, the ends of the cars were striped with gold. This color was maintained by the road up to the late nineties and then the road adopted the modern green shade. The "Empire State Express" was no exception to this rule and during this period those cars were painted red.

The New York Central was not alone in the painting of its mail cars white. In the years either 1885 or 1886, the Vandalia Railroad had a train known as "The White Mail". The cars of this train were painted a cream white with gold lettering with a narrow black border. On the outside of the car, between the bottom and belt rail, an oblong circle was placed, in which was displayed the American Eagle. The cars were built on the lines used on the Pennsylvania System at that time, with their platforms equipped with storm vestibules without the diaphragm face plate such as is used at present. Who originated this train, the writer has not been able to determine, but he has been informed that it was in the "East". The running time of this train was not fast. It was delivered to the Vandalia by the "Pan Handle" about 6.00 P. M. and arrived at St. Louis at 2.00 A. M. where connection was made with the Missouri Pacific Ry. for Kansas City. As the "Pan Handle" delivered the "White Mail" to the Vandalia late, nearly every night, the running time was faster than the above schedule would show. The engineers of the Vandalia took great pride in bringing this train in on time, and with the fine road-bed—the

Vandalia was always noted for its fine road-bed—the Postal clerks not infrequently pulled the bell cord, signalling the engineer to reduce his speed, or sometimes they applied the brakes themselves. At first this train carried no passengers, but finally a coach was added and passengers who wished, could avail themselves of such accommodations as were offered. Curiously enough the locomotive that handled this train between Indianapolis and Terre Haute was equipped with an electric headlight and siren whistle. The latter, I am told, was loud enough to “almost wake the dead”; and there is no doubt in the mind of the writer that the engineer frequently



“THE PENNSYLVANIA LIMITED” ABOUT 1895

used it. What a sight this train must have presented at night, running at a high rate of speed across the level prairies, with its beam of light piercing the darkness, its screeching whistle, followed by a dusky gray line of mail cars! It was not until 1887 that an eastbound mail train, similar to this, was added to the schedule. This train left St. Louis at 2.00 A. M. and at one time carried sleeping cars, which made it convenient with the theatrical business. No bridge collector was carried on this train, as the Vandalia turned in the bridge fares and bridge tickets at the St. Louis Union Station to the Terminal Railroad. It is of interest to note, in connection with the Vandalia, that as early in 1876, this road operated a “Hotel Car”. To describe this car in modern day terms, it would be called a “Café Sleeper”. It was operated on Train No. 5, called the “Fast

Line", leaving St. Louis at 6.45 P. M., arriving at Indianapolis at 4.00 A. M. and went through to New York. This doubtless did much to influence patronage over the Vandalia for the Philadelphia Centennial.

The "Fast Flying Virginian" of the Chesapeake & Ohio Ry. was the first train on that road to be painted the modern orange color with dark red trimmings. This train ran from Cincinnati to New York, entering Jersey City over the tracks of the Pennsylvania R. R., and made its initial trip some time in the month of March, 1889. The description of this train taken from the "Official Guide" for May, 1892, may be of interest:

"* * * * * consisting of Composite Car, elegant Day Coach with Smoking Saloon and Lavatories, similar to those used in Pullman Parlor Cars, Dining Car cooled with Electric Fans and Pullman Sleeping Cars. Vestibuled from end to end, heated by steam drawn from the engine and lighted by electricity, run through solid, without change, between Cincinnati and New York, via Washington
* * * * *

The writer has been unable to learn who worked out some of these wonderful color combinations or where the ideas of some of them originated, but the Pennsylvania R. R., went to Mexico to get one combination used on one of their trains. In 1891, Mr. Frank Thompson, Vice President of the Pennsylvania R. R., made a visit to Mexico and while there he saw the train the Mexican Government provided for President Diaz and his retinue. The exterior of this train was painted a green and cream color, and this combination appealed so favorably to Mr. Thompson, that upon his return he ordered the cars in use on the "Pennsylvania Limited", running between New York and Chicago, to be painted a similar combination. The "Pennsylvania Limited" made its initial run on November 18, 1881, and was then known as the "New York and Chicago Limited", and was the first exclusively Pullman train to be operated on regular schedule and to Mr. James R. Wood, late Passenger Traffic Manager of this road, belongs the credit of introducing the modern Limited train. The passenger equipment of the Pennsylvania was painted then, as now, a tuscan red, and Mr. Thompson upon his return, worked out the following combination of colors; trucks of the train to be painted a dark green, lower portion and also upper portion of the cars to be painted also a rich dark green, while the intermediate sides, between the

windows, etc. were painted a rich cream color. This train appeared under these colors in time for the Chicago World's Fair in 1893, and the reproduction shows this train to every advantage. The jet of steam, issuing from the combined car was from the engine carried in that car to drive the dyamo which was used to produce the electricity for lighting purposes. Mr. Thompson was so pleased with the appearance of this train, that the famous "Congressional Limited", the exclusively all parlor car train between New York and Washington, was painted a similar color combination, save that a portion of the cars, above the windows, were painted red instead of green. As may be supposed, these cars were easily soiled and difficult to keep clean, especially the cream colored portion of the equipment, and three of four years afterwards this color scheme was abandoned and gave way to the modern tuscan red. It was not until this color scheme had been abandoned, however, that the Pullman cars, parlor and sleeping, regularly assigned to the Pennsylvania Railroad were also painted the tuscan red color, which made their trains present a uniform appearance, so far as color is concerned.

Up in the Northwest, the Chicago, Milwaukee & St. Paul paints its passenger equipment an orange color with dark red trimmings and dark red letterboard. The oldest and most famous train on this road is the "Pioneer Limited", whose initial run was made some time in the month of May, 1898, and which operates between Chicago, St. Paul and Minneapolis. This road, together with the Chicago & North-Western, the latter road paints its passenger equipment a dark green body and upper portion and cream yellow color, these roads form two unique roads in this country in the matter of painting their passenger equipment.

When the Baltimore & Ohio Railroad inaugurated the famous "Royal Blue Line", between New York, Philadelphia, Baltimore and Washington, it was with the idea of furnishing their patrons with the latest equipment that the builder could make. This service consisted of nine fast trains daily, and the "Royal Limited", the most famous of these trains, made its initial run in November, 1898. The service was provided by the joint management of the Baltimore & Ohio, Philadelphia & Reading and the Central Railroad of New Jersey, and the running time over these roads, between New York and Washington, was five hours. The cars of this train were painted a royal blue and trimmed with gold. This train was made up of four cars: a combined buffet smoking car, dining car, parlor car and observation parlor car. These cars were built especially for this train

and were of the latest pattern and equipped with every modern safety device, then known, and were the largest and most palatial ever built. The dining cars used on this train were named after the famous hostelry—"Waldorf-Astoria". One half of the dining car served meals a la carte, the other half served them table d'hote. The passenger was thus offered a choice of service. This train, with the other trains that made up the "Royal Blue Line" did much to popularize that route between New York and Washington. The "Royal Limited" was queen of them all, and although the royal blue color has given way to the modern dark green, this train still continues to be popular between the two cities.

In 1899 the celebrated "Alton Limited", the handsomest train in the world was added to the Chicago—St. Louis service of the Chicago & Alton R. R. The Alton road was the oldest road, the shortest road and the only double-tracked road between these two cities, and when this train was added to the schedule, the managers of that road decided to give the passengers something far more superior, in the way of a day train, than on any other road in the country. This train first consisted of six cars; a mail car, a combined baggage smoking car, a coach-chair car, parlor car and observation parlor car. The equipment was built at the shops of the Pullman Company, and for the two trains represented an investment of \$150,000.00. The color scheme was worked out by the Pullman experts and the exterior of these cars was painted a red color, carefully graduated in three or four tints, working from the lower part of the car up to the roof from a lighter to a heavy velvety wine color, with gold trimmings. Every modern device and every comfort was furnished the passengers who readily appreciated this superior service. The "Alton Limited" of today is the only train on this road to be painted this red color and it has grown from a six to a nine car train. Another coach-chair car has been added, a dining car, three parlor cars and an observation parlor and lounge car completes the equipment of the modern "Alton Limited".

Another road that paints its passenger equipment a red color is the Canadian Pacific Ry. The modern steel coaches of this road are painted a red, similar to that used by the Pennsylvania R. R. Before the day of steel equipment, the passenger equipment was left in the natural mahogany finish.

It is of interest to note that there is still in regular service, a train, the cars of which are painted white, though this train is not operated for the convenience of passengers. The Great Northern Ry. operates a train between St. Paul and Seattle, known as the "White Flyer". This train consists of three

storage mail cars, one railway post-office car and three express cars, and all are painted a cream color with brown trimmings. It has the distinction of being the fastest long distance mail train in the world. The Chicago, Milwaukee & St. Paul R. R. delivers the mail to the Great Northern, and the latter road carries this mail eighteen hundred and fourteen miles in forty-seven and one-half hours, and the schedule is adhered to with remarkable punctuality. The inauguration of this train shortened the mail delivery a whole business day between New York and eastern points and Seattle. This train was placed in service during the latter part of 1909 and serves the people of the Northwest and the eastern cities as well.

Another famous train in her day, and perhaps the most famous of them all, was the so called "White Train" or "Ghost Train", that ran between New York and Boston, over the old New York & New England R. R. This train was composed of a combined baggage and buffet smoking car, two parlor cars, two coaches and a dining car. Originally these cars did not have vestibules, but later this factor of safety was added. The "White Train" made its initial run on March 16, 1891 and was discontinued on October 20, 1895. Officially, this train was called "The New England Limited". It was inaugurated by the New York & New England R. R. and they carried it to Williamantic where the New York, New Haven & Hartford R. R. carried it to New York. The trip was made in five hours and forty minutes, the train stopping at Willamantic, Middletown, New Haven and Bridgeport. The run from Boston to Williamantic, a distance of eighty-six miles, was made without a stop, a wonderful event for 1891! Water was taken from track pans near Putman. No train in New England was probably as widely advertised as was this train, nor did she have any equal for fame. The white cars were easily soiled and gave way to the dark green color and this marked the passing of the "White Train".

Save on a few of our roads today, the "color train" is a matter of history. Only in a few cases is there anything externally that will denote one train from another. The day of light and brilliant colors is a thing of the past, will probably be never revived, but it is interesting to know some of the many colors and schemes that were tried.

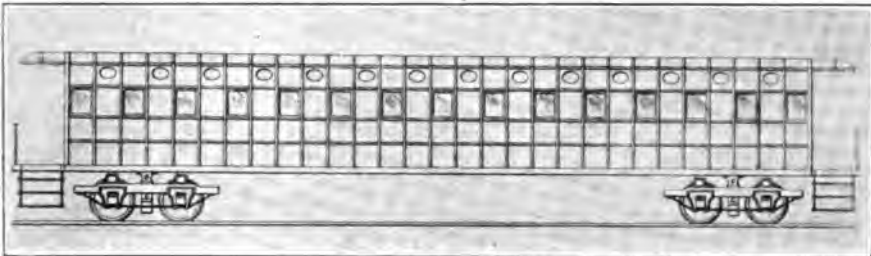
The First Iron Passenger Cars

By WALTER A. LUCAS.

In reviewing the history of American Railroad equipment the locomotive naturally is given the larger share of attention, and while other rolling stock is not so spectacular, due to its inanimacy, nevertheless the strides and attempts at improvements in cars have been important.

The year 1854 brought forth one of these when on April 4th a patent was granted to B. J. La Mothe, M. D., of New York City on an "Improvement in Railroad Cars". The claims of this patent were for building cars continuous longitudinal and transverse "elastic steel bands" whereby passenger cars would be practically fireproof and lighter in weight than the wooden ones then in use.

Dr. La Mothe secured the services of a stock promoter, Mr. E. W. Sargent of 15 Broadway, New York City, to finance his ideas. They succeeded in getting enough capital to build several passenger and freight cars.



THE FIRST IRON CAR BUILT UNDER LA MOTHE'S PATENTS FOR
THE BOSTON & WORCESTER R. R. JULY 27, 1859

On July 27, 1859 the first iron passenger car was completed at the shop of Wm. Cundell, Washington Street, Paterson, N. J. Mr. Cundell conducted a sheet iron and tinsmith business primarily to supply the various locomotive builders of Paterson with smoke stacks, head lights, stamped brass letters and numbers, boiler jacketting and ornamentations thought necessary in those days by railroads. The car could accommodate 60 passengers being 46'-0" long and 8'-4" wide over the frame with a total length over platform of 51'-6". The interior was handsomely finished, including four large mirrors with gilt frames, 30 large windows with brass sashes and curtains of handsome English rips, hat racks of the largest pattern, 28 ventilators with obscure glass, black walnut and gilt mouldings,

and many papier mache decorations in the panels including scenes in the wild mountains of New Hampshire, Passaic Falls, N. J., Landing of the Pilgrims at Plymouth, view of Portland, Me. with the leviathan steamer GREAT EASTERN, Mount Vernon and Tomb of Washington, Faneuil Hall, Niagara Falls and other views of national character.

The framework of the car was composed of iron bands from two to five inches wide running continuous from end to end and around the body similar to a wicker basket. The spine or center sill was composed of three 6" bands placed vertical with 1½" oak fillers between, the whole being rivited at each joint where the longitudinal bands crossed the vertical ones. The remaining space was filled in with thin metal panels. The roof was of galvanized iron.



IRON PASSENGER CAR BUILT FOR THE HACKENSACK &
NEW YORK R. R., FEB. 2, 1861

The car was run on the Erie Railway experimentally, and proving successful, was accepted by the original purchasers, The Boston and Worcester Railroad. From drawings of the original coach we are able to show how it appeared.

The desire to make the body strong enough caused the designers to provide windows too small for comfort and this detail was changed in the next coach built.

The next two cars were finished the early part of 1861 for a Mr. Rennie, owner of a large cloth printing establishment at Lodi, N. J. They were combination freight and passenger much smaller than the Boston and Worcester coach and built

of corrugated iron instead of bands and sheets. They were hauled by mules two miles on the Lodi Railroad to the junction with the Hackensack and New York Railroad, and thence by steam to Jersey City. No photograph of these cars has ever been discovered and they ended their service when the Rennie Works went bankrupt during one of the years following the civil war.

The last car built was for the Hackensack and New York Railroad and is shown herewith on its way from Cundell's Shop to the Erie tracks. This photograph was taken at Church and Van Houten Streets, Paterson, N. J., February 2, 1861. Like its predecessor on the Boston and Worcester it was constructed of band iron and sheets.



THE "HACKENSACK"—FIRST ENGINE ON THE HACKENSACK & NEW YORK R. R.—BUILT BY ROGERS LOCO. WORKS, OCT. 2, 1860

Records of that period differ in describing this car, one saying it had twenty seats and another thirty, which would accommodate fifty passengers. This is obviously wrong as the car had at least a capacity for 80 passengers according to the number of windows shown, three of them being in baggage or smoking room at one end of the car.

The roof and sides were lined with felt to insulate the heat and cold. The interior was finished in black walnut, gilt and oak graining, but lacked the handsome mirrors and pictures of the Boston and Worcester car.

A new style seat was used in which the back could be placed at any desired inclination, an invention of a Mr. Childs.

Seated in the car, beginning at the left, is Mr. Simpson, a truckman whose horses hauled the car on its first voyage; Mr. Wm. Cundell, the builder; and two of his sons, Daniel and William Jr.

This car was mounted on 6'-0" gauge trucks which was the prevailing gauge on the Erie, and Hackensack and New York Railroads at that time.

The springs were of heavy India rubber and the car sat squarely without any sagging which caused much wonder as everyone expected it to bend slightly from its great length.



THE REMNANT OF THE ORIGINAL CUNDELL CAR SHOPS BURNED IN 1861. WASHINGTON ST., PATERSON, N. J., JULY, 1917

The Hackensack and New York Railroad was completed the latter part of 1860, running in a straight and level line about six miles from Hackensack to a junction with the Erie main line near Boiling Springs, now Rutherford, N. J. In February 1861 their equipment consisted of one tank engine named HACKENSACK, one first class passenger engine BERGEN, and one first class iron passenger car. The two iron combined

cars were in use on the Lodi branch hauled by mules and later by the O-4-O wood burner shown here attached to a small coach. This engine was a novel arrangement of the link motion often used by Rogers. The original Lodi Railroad is now abandoned while the Hackensack and New York forms part of the New Jersey and New York division of the Erie.

On February 21, 1861 "a new locomotive named BERGEN was run for the first time with a train including the iron car to carry the crowds from Hackensack to Jersey City to see 'Old Abe' " who was on a roundabout trip from his home in Springfield Ill. to Washington where the inauguration would take place the following month.

Business on the Hackensack and New York was booming at that time and orders were let for one more iron passenger car and one wooden car.



ACCIDENT ON THE H. & N. Y. MAR. 20, 1861 IN WHICH THE IRON PASSENGER CAR WAS DAMAGED & THE NEW ENGINE "BERGEN" SUNK COMPLETELY OUT OF SIGHT

The road met with a setback when on March 20, 1861 a frightful accident took place. The train that left Jersey City at 6.00 P. M. for Hackensack with about 20 passengers ran into an open draw of the bridge on the above named river, in which Benj. Carley, the engineer was seriously injured and three or four passengers and the brakeman nearly drowned.

The large and new locomotive BERGEN manufactured by

the Rogers works was the unfortunate engine to go to the bottom of the river with the tender on top of her. The iron passenger car which made up the rest of the train hung balanced on the edge of the draw with the forward end in the water. The car was not badly broken and was removed the next day to the builder's shop in Paterson.

While the car was undergoing repairs Mr. Cundell's shop was destroyed, set on fire presumably by a man who was seen running away from the place just as the fire was discovered. April 15, 1861 at 7.20 P. M. was the historic date when the alarm was given which sounded the death knell of a new business.

The heat fairly melted the celebrated iron cars being built and repaired. They were reduced to a heap of ruins utterly worthless. Mr. Cundell suffered a great financial loss but was determined to rebuild his place "secession or no secession" as he put it. The Civil War commencing about this time put an end to his scheme however, thus closing a chapter in American railroading long since forgotten.

A splendid coal burning Tank Locomotive was shipped for the Hackensack Railroad yesterday evening from the Rogers Locomotive Works. Its name is the Hackensack, and it will be the pioneer on that road which is a credit to the enterprising people who gave their land and money toward the completion of so valuable a public improvement. The brass work was from N. Lanes shop, and the lettering is very pretty. The style is what may be called a light coal passenger engine, and its appearance yesterday was cause for the just pride those mechanics felt who had formed with so much cunning workmanship the intricate parts of the pretty machine. We heard several machinists admitting that this locomotive was one of the neatest and best machines that ever went out of Paterson. We shall rejoice to hear the first whistle on the new road. Success to her and all interested in the neighborhood through which she is destined to travel. Paterson, N. J., Daily Guardian,—October 3, 1860.—

The Railway and Locomotive Historical Society

COMMITTEE IN CHARGE OF PUBLICATOIN.

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Copies of this Bulletin may be procured from either Mr. Herbert Fisher or of Mr. J. W. Merrill.

In presenting this fourth bulletin to our members the committee in charge of publications wishes to thank all members and readers for the hearty reception and warm interest shown in our last publication and hope that this bulletin will be of equal interest. To those of us in the "railroad game", this summer has been an exceedingly strenuous one, but with the approach of winter and of times to normal, many of us can devote more time to our hobby.

The recent exhibition in the Boston Public Library aroused considerable interest in the Society and in early railroads and locomotives and the average layman was surprised at the wealth of material that was exhibited there. The lecture by Mr. James M. Kimball was of interest enough to qualify him as a master of the history of transportation. The exhibition was a great success and the credit goes to Messrs. Merrill and Jacobs.

The editor wishes to acknowledge an error that appeared in our Third Bulletin. The article on "The Illinois Central System" was selected from a publication issued by that road a short time ago over President Markham's signature entitled "What Every Employee Ought to Know." Mr. Moody furnished the editor with the selections from the above publication of that road.

The editor has received many interesting letters and articles from our members that will appear in following numbers of this bulletin and those members who have anything of interest are urged to send it to the committee for publication.

Looking past over the year 1922, the outstanding feature that will mark this year is the exhibit at the Boston Public Library. During the year our membership has nearly doubled. This is the second bulletin to be issued this year and a growing demand has been shown for these bulletins. Let us hope that during 1923 we can continue our work with such good success and before closing the door of 1922 behind us, the Board of

Directors wishes to each and every member a Merry Christmas and a Happy and Prosperous New Year.

QUESTION BOX.

Can anyone advise Mr. Fred C. Hirscl, No. 411 Rodd St., Midland, Mich. who asks "for authentic information as to where, and by who, the railroad and railroad locomotive was first used in the woods for logging purposes".

Under this heading the Editor wishes to call attention to a very interesting list of locomotive photographs received from Mr. R. E. Bleasdale, No. 32 West Street, Warwick, England. The list embraces over one hundred early English and some American locomotives and for those members of this Society who are interested in the earliest phases of locomotive construction this list should be of exceeding interest. Mr. Bleasdale has furnished photographs to the Smithsonian institution and Harvard University on this side and to the South Kensington Museum, London and Oxford and Cambridge Universities across the water. Mr. Bleasdale will be glad to furnish this list to any of our members.

Extracts from Reports of Brigadier General D. C. McCallum, Military Director and Superin- tendent of Railroads

Locomotives of the Military Railroads of the Civil War.

(Ex. Doc. No. 1, 39th Congress, 1st Session)

Year delivered	Purchased & built	Captured	Total
1862	72	40	112
1863	40	14	54
1864	154	17	171
1865	47	35	82
	<hr/> 313	<hr/> 106	<hr/> 419

Schedule of Railroad Property in Possession of the Government May 1, 1865.

(Ex. Doc. No. 154, 39th Congress, 1st Session)

<i>No. of Engine</i>	<i>From whom purchased</i>	<i>Original Cost</i>
14	L. and N. railroad	\$15,550.00
15	do.	15,550.00
16	do.	15,550.00
17	do.	15,550.00
23	C. and E. railroad	9,750.00
25	M. W. Baldwin & Co.	14,935.00
26	do.	15,192.50
27	do.	13,905.00
28	do.	13,905.00
29	do.	10,004.44
30	do.	16,588.15
31	do.	17,902.35
32	Schenectady Locomotive Works	15,450.00
33	do.	15,765.30
34	Hinckley & Williams	17,850.00
35	do.	17,856.00
36	Taunton Locomotive Works	16,016.50
37	do.	16,343.37

<i>No. of Engine</i>	<i>From whom purchased</i>	<i>Original Cost</i>
38	William Mason	16 816.32
39	do.	16,816.32
40	Danforth Cooke & Co.	16,275.00
41	do.	16,275.00
42	Roger's Locomotive & Machine Works	16,284.30
44	New Jersey Locomotive Works	16,293.81
45	do.	16,290.81
46	do.	16,290.81
48	R. Norris & Son	15,450.00
49	do.	15,450.00
50	R. Norris & Son	15,765.30
51	do.	15,765.30
52	do.	15,606.05
53	do.	16,636.05
70	Roger's Locomotive & Machine Works	20,618.00
71	do.	20,600.00
72	do.	20,600.00
73	do.	20,600.00
74	Schnectady Locomotive Works	17,686.86
75	do.	16,646.45
76	do.	19,827.50
77	do.	19,827.50
78	New Jersey Locomotive Works	20,600.00
79	do.	20,600.00
80	Danforth, Cooke & Co.	20,600.00
81	do.	20,600.00
83	Hinckley & Williams	20,600.00
84	do.	20,600.00
85	William Mason	18,540.00
86	do.	18,540.00
87	Taunton Locomotive Works	18,620.00
88	do.	18,620.00
89	do.	18,620.00
90	H. W. Baldwin & Co.	22,145.00
91	do.	20,857.50
92	do.	20,857.50
93	do.	20,857.50
94	R. Norris & Son	20,600.00
95	do.	18,777.93
96	do.	18,777.93
101	Michigan Central Railroad	14,280.00
115	Roger's Locomotive & Machine Works	20,618.00
116	do.	20,600.00

<i>No. of Engine</i>	<i>From whom purchased</i>	<i>Original Cost</i>
117	do.	20,600.00
118	do.	20,600.00
119	do.	20,600.00
120	do.	20,600.00
121	do.	20,600.00
122	do.	20,600.00
123	do.	20,600.00
124	do.	20,600.00
125	do.	20,600.00
126	do.	20,600.00
127	Roger's Locomotive Works	20,600.00
128	do.	20,600.00
129	do.	20,600.00
130	Danforth, Cooke & Co.	20,600.00
131	do.	20,600.00
132	do.	20,600.00
133	do.	20,600.00
134	do.	20,600.00
136	do.	20,600.00
137	do.	20,600.00
138	do.	20,600.00
139	do.	20,600.00
140	do.	20,600.00
142	New Jersey Locomotive Works	20,600.00
143	do.	20,600.00
145	do.	20,600.00
146	do.	20,600.00
148	do.	20,600.00
149	do.	20,600.00
150	do.	20,600.00
151	M. W. Baldwin & Co.	19,516.15
152	do.	19,516.15
153	do.	19,516.15
154	do.	19,516.15
155	do.	19,516.15
156	do.	19,516.15
157	do.	19,516.15
158	do.	19,516.15
159	do.	19,516.15
160	do.	19,516.15
161	do.	19,516.15
162	do.	19,516.15
163	do.	19,516.15

<i>No. of Engine</i>	<i>From whom purchased</i>	<i>Original Cost</i>
164	do.	19,516.15
165	do.	19,516.15
166	R. Norris & Son	18,777.93
167	do.	18,777.93
168	do.	18,777.93
169	do.	18,777.93
170	do.	18,777.93
171	do.	18,777.93
172	R. Norris & Son	18,777.93
173	do.	18,777.93
174	do.	18,777.93
175	do.	18,777.93
176	do.	18,777.93
177	do.	18,777.93
178	do.	18,777.93
179	Taunton Locomotive Works	20,600.00
180	do.	20,600.00
181	do.	20,600.00
182	do.	20,600.00
183	do.	20,600.00
184	do.	20,600.00
185	do.	20,600.00
186	William Mason	20,600.00
187	do.	20,600.00
188	do.	20,600.00
189	do.	20,600.00
190	do.	20,600.00
191	do.	20,600.00
192	do.	20,600.00
193	do.	20,600.00
194	Manchester Manufacturing Co.	20,600.00
195	do.	20,000.00
196	do.	20,600.00
198	Hinckley & Williams	20,600.00
199	do.	20,600.00
200	do.	20,600.00
201	do.	20,600.00
202	do.	20,600.00
203	Portland Manufacturing Co.	20,600.00
204	do.	20,600.00
205	do.	20,600.00
206	do.	20,600.00

<i>No. of Engine</i>	<i>From whom purchased</i>	<i>Original Cost</i>
208	R. Norris & Son	18,540.00
209	do.	18,540.00
210	do.	18,540.00
211	L. C. & A. railroad	13,905.00
Total -----		<u>\$2,932,943.60</u>

The above list was furnished the Society by Mr. Freeman Smith, Portland, Maine.

Exhibition at Public Library, Boston, Mass.

The recent exhibition held in the Boston Public Library of old locomotive photographs, lithographs, early time tables, tickets, etc. from October 30th to November 4th aroused considerable interest on the subject of early transportation. Those who were able to visit the exhibition felt well paid for their effort as there was certainly plenty to interest those who specialize in this subject.

Mr. James M. Kimball of Ayer, Mass., delivered an interesting lecture, illustrated with slides, on the subject of Transportation on the evening of the 2nd. Mr. Kimball commenced with the earliest form of transportation and carried same right through to modern times and those who were fortunate enough to attend his lecture could not help but feel that "Uncle James" handled his subject in an exceedingly interesting manner.

Had there been more space, additional material could have been shown. Certainly there was no lack of material and at some future time another exhibition may be arranged. Credit is due to both Mr. J. W. Merrill and Warren Jacobs for their untiring efforts to make this exhibition a success and nearly all the material was furnished by these two gentlemen.

49 Warwick Street, Lowell, Massachusetts.

Editor:—

I am sending you with this a copy of an old letter that has recently come to my notice, which I thought might interest you as bearing on the objects and purposes of our society. Of course you well know who Robt. Stevenson was, the party to whom the letter is addressed, but you may not know so much about Patrick Tracy Jackson, who signed the letter as "Treas. Proprs. L. & C." The letters "L. & C." stand for Locks & Canals, which is a short way of speaking of the proprietors of the Locks and Canals on Merrimack River, the Corporation with which I have been employed for the past 40 years. They were among the early builders of locomotives here in New England, and I am not sure but that they were the pioneers in that line in this part of the country.

In the eighth line of the text you will notice the seventh word is spelled *tracts*, which is just as it is in the original, altho' I think tracks was really meant. I have underscored "tracts" in the copy to call attention to the apparent misspelling.

FRANCIS E. APPLETON.

Boston, Feby. 9, 1839.

Robt. Stevenson, Esq.,

Sir. In the year 1832 I imported from England two Locomotive Engines of your manufacture one of about 10, the other 8 ton weight. Being delayed much longer than I expected in opening the road I was then commencing (the Boston & Lowell road) I sold the small Engine to the Boston & Providence Rail Rd. Company; it is still running on their road and is, in my opinion, fully equal if not superior, to any one they have, and they have them from at least five different builders. The larger Engine I used in moving earth while grading our road on temporary *tracts*, which is hard duty, and since the road has been open in 1834, have used it for transporting merchandise, and it has never been in our shop for a general overhaul and repair until the last month. I should have supplied myself further and entirely from you, but we have a large machine shop at Lowell, and finding that but few more tools would be required for building than for repairs, we determined to build Engines for ourselves and for those in our neighborhood who would purchase of us. We have followed your pattern thinking it the best we have yet seen, either from England or built here. The Superintendent of our Machine Shop Mr. George Brownell will hand you this. He is on a visit to England for the purpose of purchasing some materials for us and of obtaining information on matters connected with our business. I have thought possibly that we might obtain some parts of the Engines finished entirely or in part, better and cheaper than we can procure them here. Any engagements he may make of this kind will be acknowledged and fulfilled by me. Should it accord with your rules to permit him to visit your works, or to aid him in his pursuit, you will confer an obligation on me, which I shall gladly reciprocate either to you or your friends whenever you will have the goodness to afford me the opportunity.

I am respectfully Your obt. st.,

(Signed) P. T. Jackson, Treas.
Proprs. L. & C.

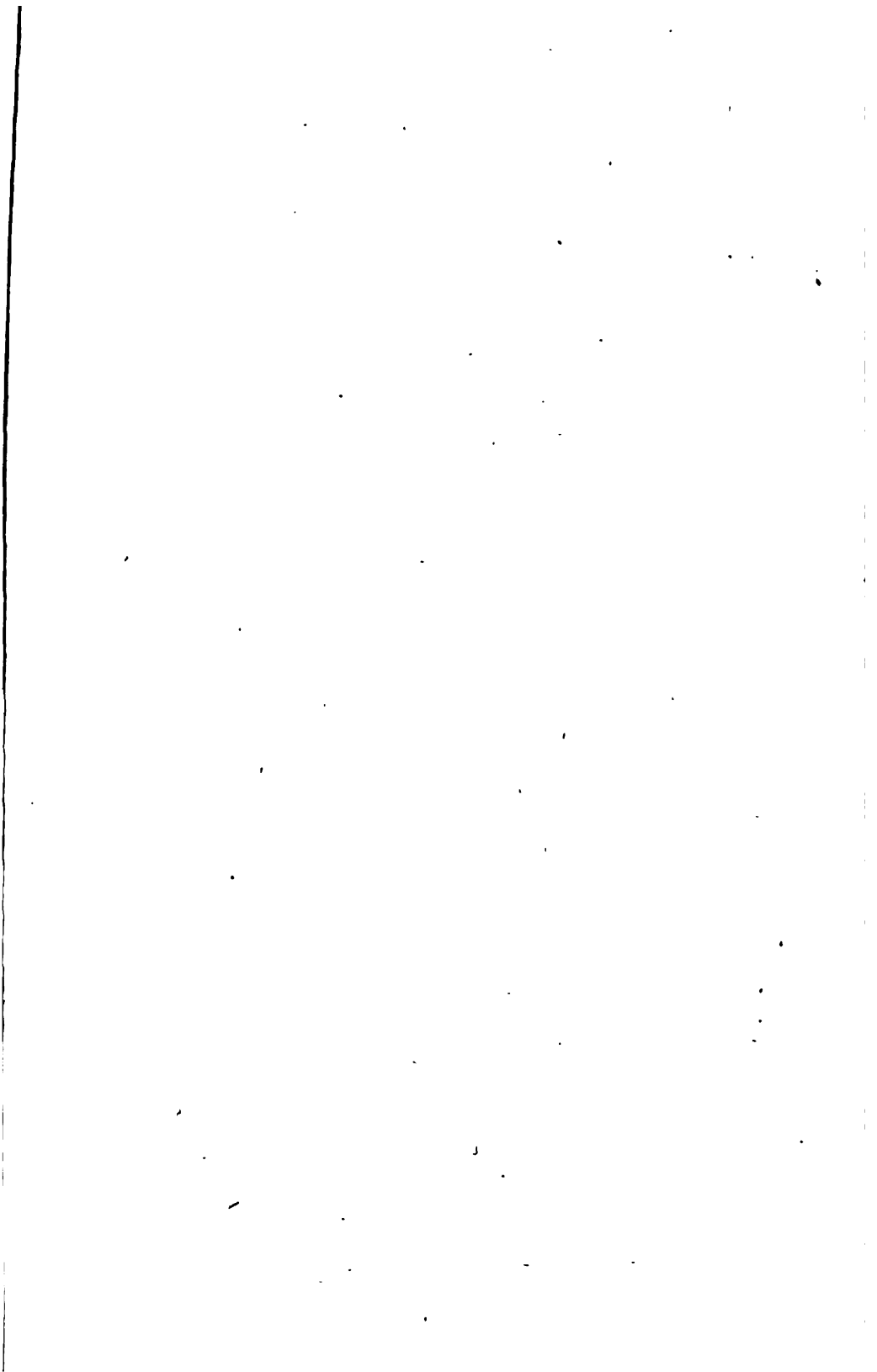
1. The first part of the document is a list of names and addresses of the members of the committee.

2.

3.

4.

5.





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